The Journal of the American Medical Association

Published Under the Auspices of the Board of Trustees

VOL. 142, No. 15 — CHICAGO, ILLINOIS — APRIL 15, 1950

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RESPONSIBILITY OF A PROFESSION FOR THE PROMOTION OF EDUCATIONAL STANDARDS

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The interest shown in this conference and the active participation in its programs over the years by representatives of medical education, general education, government agencies, state licensing boards, hospitals, foundations, special societies, the specialty boards and others interested in medical education are symbolic of the efforts of the Council to foster and, when possible, integrate the activities of all groups concerned with the improvement and development of medical education.

With the full recognition that the quality of medical education is a basic factor in determining the quality of medical practice, all phases of the education of the physician have been subjected to increasing study.

It is impossible to designate a specific moment in a physician's career as the beginning of his preparation for the practice of medicine. It can fairly be said, however, that medical education begins formally when the prospective physician enters college to prepare himself for admission to medical school and ends only when he dies or permanently retires.

The organizations that have become active in promoting and establishing standards for medical training have greatly increased in recent years. As a result, many questions have been raised concerning the relationships of these organizations to each other and to the total structure of medical education. Indeed, in the field of higher education as a whole, challenging questions are being asked with respect to the multiplication of organizations that have undertaken to approve or accredit various courses of study in an effort to promote higher educational standards. In answer to these questions, various proposals have been advanced including suggestions that, on the one hand, all accreditation of educational institutions be abolished and that individual institutions alone be entrusted with accrediting themselves or, on the other hand, all accrediting activities be centralized under the supervision and control of a supreme agency set up to accredit accrediting agencies.

Since the Council on Medical Education and Hospitals was probably the first effective national accrediting body in the realm of higher education in the United States, it is responsible, to the extent that it set an example, for the development of accrediting agencies as important instruments in improving the quality of education in this country. For this and other reasons, the Council has a natural interest in the discussions that are taking place today concerning accreditation both in medicine and in higher education in general. The Council felt, therefore, that it would be appropriate if the chairman's address at this Congress were devoted to a discussion of the responsibility of a profession for promoting educational standards and to a review and a restatement of certain fundamental policies that have guided the Council on Medical Education and Hospitals in its efforts on behalf of the medical profession to improve the quality of medical education.

Let us first consider the fundamental question: What responsibility does a profession have for establishing standards for the preparation of those who seek to join its ranks? Dean Pound has succinctly defined a profession as "an organized calling in which men pursue a learned art and are united in the pursuit of it as a public service—no less a public service because they make a livelihood thereby." It is implicit in the spirit and tradition of professions that their primary responsibility is to improve and advance the quality of the service that their members render individually and collectively to the public.

In medicine, as in all other professions, the quality of the performance of its members is governed more by the quality of their professional training than by any other single factor. The medical profession would, therefore, clearly be failing to meet one of its primary responsibilities if it did not seek to maintain an effective program for promoting high educational standards in all phases of medical education. Fortunately for its own honor and for the public interest, the medical profession has recognized this responsibility. It is well known that the American Medical Association was established primarily for the purpose of elevating the standards of medical education in this country.

In view of the federal government's lack of authority to establish regulations controlling either medical education or medical practice in this country, the organized medical profession was the only group that was in a position to take the leadership in establishing national standards for the guidance of the local units of government in whom the authority to regulate medical education and medical practice have been vested. Here is a historical fact of great importance to an understanding of why voluntary agencies in this country have been forced to assume the major responsibility for establishing educational standards as opposed to the situation in almost all other countries of the world, where the

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Chairman, Council on Medical Education and Hospitals, American Medical Association.

Read before the Forty-Sixth Annual Congress on Medical Education and Licensure, Chicago, Feb. 6, 1950.

control of education, and hence the responsibility for setting and maintaining standards, is in the hands of the central government.

As evidence of its determination to improve medical education, it may be pointed out that the profession has spent between three and four million dollars in supporting the work of the Council during the past forty-five years. Currently, the profession is providing approximately a quarter of a million dollars annually for the support of activities in the field of undergraduate and graduate medical education.

It should be pointed out that the Council on Medical Education and Hospitals has no legal powers. Its effectiveness has depended not only on the support that it has received from the profession but also on the confidence in its findings on the part of government bodies, the better schools and the public at large. This confidence was early established because of the fairness of the Council's studies and the objectivity and disinterestedness of its approach.

The examples set by certain American universities in establishing superior medical schools antedated the work of the Council. In all instances, such concrete demonstrations of advances in medical education have been a source of inspiration and guidance to the Council and have given support to the Council's insistence that the standards of medical education could and should be elevated.

It should also be pointed out that as medical education has become stabilized under the supervision of universities and other responsible groups, the Council has recognized the desirability and importance of eliminating rigid stipulations from its requirements. By periodically restating its standards of an acceptable medical school in increasingly broad and general terms, the Council has sought to encourage institutional responsibility in the maintenance and further development of educational programs of high quality, with each medical college having a maximum of freedom in experimenting with its program. A realistic appraisal of the past and present status of medical education in this country, however, makes it clear that university sponsorship alone is not a sufficient guarantee to the public that the quality of professional training that an institution offers is satisfactory. In many of our states the legal requirements imposed on groups desiring to organize and maintain universities or professional schools are not of such a nature that the possession of a proper legal charter by an institution is sufficient evidence that an adequate educational program will be offered. Past history has shown that occasionally even established universities that have developed satisfactory programs in other fields of learning have permitted their medical school to operate below acceptable standards. Thus while individual universities have and will continue to pioneer in the development of outstanding programs of medical education and while the day may come when university sponsorship alone will be sufficient to guide the public in judging the quality of medical schools, a real need still exists in this country and will exist well into the future for accreditation. Furthermore, the agency responsible for this accreditation should be in such a position that there can be no question of its being influenced in its decisions by the attitudes of the medical colleges or their parent universities to each other.

It is not my purpose this morning to seek undue credit for the medical profession. Historically the record is clear that the general improvement in medical education that has taken place in the United States during the last forty-five years resulted primarily from the leadership provided by the medical profession. This fact was well stated in the presidential address delivered at the recent meeting of the Association of American Medical Colleges, in which it was pointed out that the initiation of reforms and the elevation of standards of medical education was the work of "an independent body of the profession possessed of energy, foresight and zeal for the public good."

In this country we are fortunate in having a community of agencies working for the improvement of medical education. The Council recognizes and has always recognized that to fulfill its responsibilities for promoting high standards of medical education it must work in the closest cooperation with all groups that have similar interests. To integrate, whenever possible, the activities of these groups, without trespassing on their independence, should be and has been one of the principal functions of the Council. The role of the Council in its relation to other agencies was clearly expressed by Arthur Dean Bevan in his chairman's address before the first of these annual conferences in 1905. Referring to the first meeting of the Council which had been held a few months earlier, Dr. Bevan said, "The conclusion was reached that the most effective work could be done by this Council not independently but by cooperating with the other agencies which were interested in and working for the elevation of standards of medical education. As a result, this conference was called, with the hope that it might be productive of good and that it might lead to a permanent national conference on medical education with regular annual meetings."

Dr. Bevan went on to point out that there were many agencies interested in medical education represented at the conference, including the medical profession, the medical schools represented by committees of the Association of American Medical Colleges, the state licensing boards, the medical corps of the army, the Public Health Service and teachers in colleges of liberal arts.

At the conclusion of his address, Dr. Bevan said, "It is not the purpose of the Council on Medical Education of the American Medical Association to arrogate to itself any special powers, nor does it desire either to criticise or interfere in any way with any of the agencies which are already in the field. If its creation is to result in good, it must be the means of obtaining cooperation between the medical profession, the medical schools, the colleges of arts, the state examining boards, the government services and all groups which are interested in elevating and regulating medical education."

In 1928 in his last address before this Congress, Dr. Bevan summarized the accomplishments of the intervening twenty-three years in a paper fittingly titled, "Cooperation in Medical Education and Medical Service." Stressing the continuing need for cooperation, Dr. Bevan stated, "The fight for higher standards of medical education has been won. It has been won by the united efforts of the American Medical Association, the Federation of State Medical Boards, the Association of American Medical Colleges, the American universities and colleges, the great educational founda-

tions, the Carnegie Foundation for the Advancement of Teaching, the Rockefeller Foundation and the General Education Board. This great educational advance, the greatest that has occurred in any field of education in the last twenty-five years, is a wonderful example of what can be accomplished by the right sort of cooperation of the forces vitally involved in a great problem; but there remains much to be accomplished and this must be accomplished by securing the same sort of cooperation in the future development of medical education."

The philosophy of cooperation expressed so clearly by Dr. Bevan has continued to be the guiding philosophy of the Council in its efforts to promote the cause of medical education. Many illustrations may be cited of cooperative efforts in which the Council has engaged and which have brought it into close and profitable relationships with other groups.

Few actions taken by the Council have been more effective in improving the quality of medical education than was the elevation of the requirements for premedical education at a time when many medical schools were not even demanding a complete high school course of their candidates for admission. In preparing these standards, the Council did not attempt to settle the question by itself but called in a group of specialists in collegiate education and constituted their recommendations as the standards for premedical education. These standards are now being reviewed again by a group of general educators as part of the Survey of Medical Education jointly sponsored by the Council and the Association of American Medical Colleges.

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In 1913 the Council sponsored the organization of the Federation of State Medical Boards of the United States and has worked in intimate cooperation with that organization ever since, to the great benefit of medical education and the public welfare. Without the splendid support of the state licensing boards in refusing to recognize medical schools judged by the Council to be inferior, the effort to improve medical education would have been seriously handicapped if not entirely nullified. Many problems involving the relationships of medical education to medical licensure remain to be solved, and continuing cooperation is as important today as at any time in the history of the Council and the Federation. The Council is looking forward to continuing its cooperative relationships with the Federation.

From its beginning the Council has enjoyed the closest kind of cooperation with the Association of American Medical Colleges, although both organizations have properly remained free to act independently.

When the first tour of inspections of the medical schools was initiated in 1906 by the Council, officers and members of the College Association were invited to participate. In turn, the Council, from the start of its work, received fine cooperation from the College Association. When the Council prepared its first classification of medical schools and it was found that several schools in membership in the College Association were rated as unacceptable, the College Association dropped these schools from membership.

Throughout the years a close working arrangement between these two groups has continued. Consultations and joint or collaborative efforts have been numerous. In areas in which the College Association has undertaken special activities, the Council has wisely refrained from establishing programs that would duplicate or compete with these undertakings.

In 1942 the two organizations were brought into an even more intimate relationship with the formal creation of a liaison committee composed of representatives of both organizations. Meeting three or more times a year this committee has been largely successful in making possible a fine coordination of the activities of the two groups particularly in the matter of visiting and evaluating medical schools. Many other important examples of cooperation between these two groups could be cited. One of the most significant, of course, is the present Survey of Medical Education, which is being jointly sponsored by the Council and the Association of American Medical Colleges.

The Council places a high value on the importance of harmonious relationships between it and the College Association. The Council, therefore, pledges that in the years ahead it will strive to preserve and strengthen this relationship which has benefited the public, the medical schools and the profession so greatly during the first half of this century.

Another group with which the Council has established an effective liaison is the American boards in the specialties and the Advisory Board for Medical Specialties. These boards have contributed immeasurably to the outstanding development of graduate medical education in the United States during the past fifteen years. With the establishment of the boards, the Council has been guided by the advice of the leaders in the various fields who compose these boards in preparing standards for residency training. Likewise, in evaluating hospitals for training in special fields, the Council has been able to do much more satisfactory work because of its close liaison with the individual boards.

Criticism has been leveled at times at the position that the Council and the boards occupy with respect to graduate training in medicine. The feeling has been expressed that the universities have surrendered the control of graduate education to groups that are neither educational institutions nor licensing bodies. If graduate training in this country were confined to universities, such a criticism would carry much weight. Graduate training in the United States, however, has from the start been decentralized, and much of it has been and is being conducted in institutions not under the supervision of universities. There has thus been and will continue to be a real need for the activities of the American boards and the Council in this field if suitable standards of graduate training are to be developed and maintained on a national basis. With the membership of the boards made up to a large extent of leading members of the faculties of universities, there is every assurance that competent educators will have a strong voice in shaping the policies and practices of the boards and that universities will not find themselves hampered by the regulations of the boards in undertaking sound experiments in graduate education. Certainly the Council considers one of its important functions to be that of working in cooperation with both the universities and the boards to promote the development of high standards of graduate training based on sound educational principles.

As the government medical services have become increasingly active in the field of graduate medical education, it has been natural that the Council's liaison

with these services should have become closer. Representatives of these services have for several years now regularly met with the Council and have worked with the Council's staff on problems of mutual interest.

Another field in which the Council has demonstrated its capacity to serve as an integrating force in the broad field of medical education has been the relationships that it has developed over the last fifteen years with the various organizations concerned with the training of ancillary personnel including medical technologists, physical therapists, occupational therapists, medical record librarians and x-ray technicians. At the request of the appropriate organizations in each of these fields, the Council has collaborated in formulating standards of training and in accrediting institutions offering training in these fields. Those most intimately concerned with these ancillary divisions have expressed the opinions that the support so given by the Council has been an important factor in placing training in these fields on a sounder basis and thus has increased the contribution that these services are making to the over-all health care program.

I shall not continue to recount the activities of the Council in working with other agencies and groups to raise educational standards. The current annual report of the Council lists more than fifty organizations with which the Council collaborated in one way or another during the past year on matters relating to the promotion of standards of medical education in its various phases.

In a field that is as complex as medical education, no organization can do everything that it would like to do or that many feel it should do. The Council is no exception. The Council further recognizes that the cooperation that it has sought to establish has at various times and for various reasons been imperfect. The Council, however, believes that today, just as much as forty-five years ago, it has major functions and responsibilities to discharge on behalf of the medical profession in promoting standards of medical education. The Council further believes that the principles that have guided its activities are sound.

In the past forces have been at work that have misguidedly sought to lower the standards of medical education. Current news dispatches indicate that we are not immune to such forces now, and we probably never shall be in the future. At times these forces may threaten seriously to undo the advances that have been achieved or to prevent further advances. These forces can be successfully withstood only if all groups concerned with medical education are working together. To work vigorously for the advancement of medical education by fostering harmonious cooperation among all responsible groups will continue to be the basic philosophy and objective of the Council in the future as it has been in the past.

Purveyal of Medical Service.—A physician should not dispose of his professional attainments or services to any hospital, lay body, organization, group or individual, by whatever name called, or however organized, under terms or conditions which permit exploitation of the services of the physician for the financial profit of the agency concerned. Such a procedure is beneath the dignity of professional practice and is harmful alike to the profession of medicine and the welfare of the people.—Section 6, Chapter III of the PRINCIPLES OF MEDICAL ETHICS of the American Medical Association.

SURVEY OF MEDICAL EDUCATION

Preliminary Observations

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The survey on medical education in the United States was first proposed in 1947. At that time the Council on Medical Education and Hospitals of the American Medical Association and the Association of American Medical Colleges appointed a temporary committee to formulate a plan for a survey. Early in 1948 a permanent, independent survey committee was appointed with the specific responsibility of supervising the conduction of the survey and preparing and publishing a report. Some of the reasons for carrying out such a survey were as follows:

First, only two surveys of medical education had been carried out in the United States. The first was the Flexner Report in 1910 and the second the study made by Dr. Herman Weiskotten in 1935 and 1936. Dean Rappleye's report in 1932 was an evaluation of medical education but did not involve an actual survey of each school. Therefore, a period of fifteen years has passed since any comprehensive study of the problems of the medical schools has been made. World War II occurred in this period, adding many new and difficult problems.

Second, attention has repeatedly been called to the need for an examination of the requirements for matriculation prescribed by the medical colleges and to the criteria used in the selection of medical students.

Third, many advances have been made in the science of medicine which need evaluation in terms of their impact on medical education and on the curriculum.

Fourth, various new patterns of medical practice have been inaugurated.

Fifth, heavy demands have been made on the medical colleges, among which the following may be listed: A demand for (*a*) an increase in the number of physicians—facts concerning the ability of the medical schools to expand enrolments have been lacking; (*b*) an expansion in the program of research in both the basic sciences and clinical medicine; (*c*) greater development of graduate and postgraduate medical education; (*d*) the addition of new subjects to the medical school curriculum, such as biophysics, psychosomatic medicine, social medicine and atomic energy; (*e*) greater emphasis on certain phases of medical instruction, such as cancer, hypertension, psychiatry and heart diseases, and (*f*) the supervision and conduct of community health services in order to improve the quality of medical service to the people. Medical colleges are being urged to develop affiliations and cooperate with local and regional hospitals, nursing services, public health departments and other health and welfare agencies in their service programs.

These may be cited as some of the factors which gave rise to the feeling of the need for a survey of medical education. The broad objectives of the survey have been stated and published on several occasions. They are four in number. The first is to improve medical education, better to meet the over-all needs of the American people for (1) the prevention of disease, (2) the restoration so far as possible to health of all those who suffer illness or injury and (3) the maintenance of the best standards of physical and mental

Director, Survey of Medical Education.

Read before the Forty-Sixth Annual Congress on Medical Education and Licensure, Chicago, Feb. 6, 1950.

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health of all persons. The second objective is to assess the degree to which medical schools are meeting the needs of the country for physicians. The third is to promote the advancement of knowledge in the field of medical science. The fourth is to inform the public concerning the nature, content and purposes of medical education.

METHOD OF SURVEY

A full time staff has been organized within the past year in order to carry on the work of the survey. Members of the staff are Dr. Robert C. Berson, a graduate of Vanderbilt University Medical School, who was formerly assistant dean and assistant professor of medicine at the University of Illinois, and Dr. Thomas Hale, also a graduate of Vanderbilt, who is associate dean of the Albany Medical College and director of the hospital. These two physicians as well as two full time secretaries and myself constitute the staff of the survey at the present time. We have divided our work into the following headings:

1. Preprofessional training of the physician
2. Undergraduate or four years of medical school training
3. The period of graduate training or of internship and residency
4. Postgraduate education
5. Community relationships. Under this heading is included the relationships of the medical school with affiliated hospitals, social and welfare agencies, public health departments and local physician groups.

It was soon realized, in laying out the plans for the survey, that we would need additional help and advice. It was therefore planned to form a subcommittee on preprofessional college education which would be responsible to the survey committee but would have considerable authority and responsibility for organizing its plans and method of study. The purpose of this committee is to outline the problems arising in the preparation and admission of students to the medical schools and to propose methods and experiments for solving these problems. Dr. Aura E. Severinghaus, associate dean at Columbia University Medical College, has accepted the responsibility of acting as chairman of this committee. He has been authorized to select the members of his committee and to plan its methods of study. The survey committee hopes that it will be able to obtain a grant from a philanthropic organization in order to support this phase of the Survey of Medical Education. The findings of the survey teams as they interview the faculty and students of the various medical schools will be correlated with the findings of this subcommittee.

The survey committee also soon realized that if it were to cover graduate and postgraduate medical education, as well as the community relationships of the medical schools, additional help and financial backing would be necessary. Therefore, we proposed to enlarge the full time staff in order to study more adequately some of these problems.

The first of these problems was thought to be the trend to affiliate outlying hospitals with the medical school. Such affiliations may frequently create major problems for the medical school with respect to the responsibilities they assume for the staff and for the quality of teaching and the development of research within these hospitals.

The second trend that should be analyzed in this portion of the study is that of specialization. The influence of this movement on the medical school, on postgraduate training and on the general practice of medicine was felt to present a new challenge to medical education which would require careful study.

The third trend is the growing demand for postgraduate courses. The objectives and effectiveness of such education must be determined. The patterns of teaching and experiments beings carried on at the present time in this field of education require evaluation.

The fourth trend was the increasing importance of the medical school in community life. It was felt that the value of the medical services and care made available to the community by the medical school should be evaluated and ways and means of wisely developing such services considered. The survey committee is happy to announce that the W. K. Kellogg Foundation has made a grant in aid of $75,000 to cover a minimum of a two year period for the study of this portion of the survey.

As the program of the survey committee became more comprehensive, it became evident that it would be necessary to have the counsel and advice of persons representing large segments of public opinion. It was therefore decided to form an advisory council, the functions of which were outlined as follows: first, to advise the survey committee whether the plans for the conduct of the survey promise to gather satisfactory information concerning those aspects of medical education that are of interest to the general public; second, to review the progress of the survey from time to time to determine whether this information was being collected adequately, and third, to study the final report and advise the committee whether the broad interpretations are the logical outgrowth of the findings.

This council has been organized and, although it may be further enlarged, at the present time it is composed of the following members: Dr. Raymond B. Allen, Seattle, President of the University of Washington; Dr. Donald B. Armstrong, New York, Vice President of the Metropolitan Life Insurance Company; Detlev W. Bronk, Baltimore, President of Johns Hopkins University; George Bugbee, Chicago, Executive Director of the American Hospital Association; William B. Given Jr., New York, President of the American Brake Shoe Company; Clinton S. Golden, Washington, Labor Advisor to the Economic Cooperation Administrator; General Paul R. Hawley, Chief Executive Officer of the Blue Cross Commission; The Honorable Lister Hill, United States Senator from Alabama; J. S. Jones, Executive Secretary of the Minnesota Farm Bureau Federation; Edward L. Ryerson, Chicago, Chairman of the Board of the Inland Steel Company; Stanley Resor, President of the J. Walter Thompson Company; Dr. Leonard A. Scheele, Washington, Surgeon General of the United States, United States Public Health Service; Harold E. Stassen, President of the University of Pennsylvania, and Robert L. Stearns, President of the University of Colorado.

Other special committees to advise or meet with the survey committee may be appointed as the need arises.

The actual technic in the survey of each medical school is somewhat as follows: A date is arranged with the dean of the medical school six to eight weeks in advance of the time set for a survey team to visit the school. At this time questionnaire forms are forwarded to the dean. They include a set of questions for the dean himself, covering administration, finances, physical facilities and objectives of the school. The

second set of questions is used to cover the basic science departments and a third set to cover the clinical departments. Included in these questionnaire forms are questions concerning hospital affiliations, welfare agencies and community relationships of the medical school. The answers to these questionnaire forms are returned to the office of the survey. They are reviewed by the team of men who are to visit the school.

The teams of men thus far have been composed of three to four members. Two are of the full time staff, the nucleus of the team. In addition to these two men a volunteer, who is usually a member of either the Council on Medical Education or the Association of American Medical Colleges, is asked to participate in the survey. In addition either the secretary of the Council on Medical Education, Dr. Donald G. Anderson, or the secretary of the Association of American Medical Colleges, Dr. Dean F. Smiley, has been good enough to participate as active members of these teams whenever possible. This method has given the full time members of the survey staff the additional breadth of vision and judgment of the deans of various schools who have been active in medical education over a number of years. A survey team will spend from four to ten days at each of the medical schools in the United States, depending on the size and the scope of activity of the individual school.

The first approach is to the dean, in which an attempt is made to cover in brief form the historical development of the medical school, its administration, facilities, finances, objectives and staff. The team then proceeds through each department of the medical school. One member of the team devotes a considerable portion of his time to the internship, residency training and postgraduate education. The affiliated hospitals are visited and their educational programs reviewed, and various, welfare agencies are consulted as well as the local medical society. Whenever possible the president or the chancellor of the university is interviewed as well as members of the board of trustees. A final discussion is held with the dean near the end of the survey.

In order to meet younger members of the staff an attempt is made to have lunch every day with four to six members at the level of instructor or assistant professor. One evening is spent with students from the junior and senior classes.

In the course of the interviews with the dean, faculty and students the needs and problems of medical education are stressed and their ideas and suggestions for meeting these needs carefully considered. Experimental programs that are projected or under way are explored and observed. It is our hope that from such considerations the trends in thinking of medical educators for the future can be outlined and certain fields for experimentation defined.

After each survey a complete report of the medical school is written. This is summarized and weighed, and the strong and weak points and the outstanding needs of the medical school are evaluated. New experiments in education or in other fields are outlined. The survey of ten medical schools has been completed since Sept. 20, 1949. The program will include a survey of fourteen more schools before the end of the school year.

It would be impossible to draw any valid conclusions from the survey at this time, and it is premature to list what appear to be the major problems thus far encountered although this has been done. However, one need has been repeatedly emphasized, which is the need for information. College students and college faculty members wish information concerning medical schools. The medical students themselves are anxious to discuss medical school problems and have offered valuable suggestions, but they feel that they are uninformed concerning the policies and problems of their own schools. The university administration and finance officers realize that the medical college has unusual problems and that they cannot ignore these problems. They require facts concerning the cost and methods of financing medical education.

Welfare and health agencies are critical of university hospitals and clinics. Leaders in these fields state frankly that their criticisms arise from a lack of information and understanding of the medical school policies and financial problems. The medical profession, as represented by its officers, is willing and at times anxious to discuss medical education, but officers state that they have not been informed concerning the problems presented to them. They hope that the survey will be able to supply them with facts.

There is no adequate method for evaluating the attitude of the general public, but according to newspaper reports, medical education is an important news item. The problem of how to inform these various interested segments of the public is a challenge to all as well as to the survey.

The survey committee plans to continue to make reports during the course of the survey. The members of the survey staff are keenly aware of their responsibilities to the medical schools. They appreciate the fact that money could not buy the cooperation and efforts which thousands of faculty members are contributing.

THERAPEUTIC EFFICACY OF Δ^5-PREGNENOLONE IN RHEUMATOID ARTHRITIS

Preliminary Observations

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The therapeutic efficacy of cortisone and pituitary adrenocorticotropic hormone (ACTH)[1] in rheumatoid arthritis has suggested the possible application of other steroid hormones in this disease. To this end we have selected Δ^5-pregnenolone because of (*a*) its possible role as a precursor of more active steroid hormones[2]; (*b*) its effect on decreasing fatigue[3]; (*c*) its sparing action on the adrenal cortex[3] and (*d*) its lack of toxicity in

From the Worcester Foundation for Experimental Biology, Shrewsbury, Mass., and the Arthritis Clinic of Memorial Hospital, Worcester, Mass.

We are indebted for supplies of pregnenolone and pregnenolone acetate to Syntex, S. A., Schering Corporation and Ciba Pharmaceutical Products, Inc., and for grant support to G. D. Searle & Co.

1. (*a*) Hench, P. S.; Kendall, E. C.; Slocumb, C. H., and Polley, H. F.: Effect of Hormone of Adrenal Cortex (17-Hydroxy-11-Dehydrocorticosterone; Compound E) and of Pituitary Adrenocorticotropic Hormone on Rheumatoid Arthritis, Proc. Staff. Meet., Mayo Clin. **24**: 181, 1949. (*b*) Thorn, G. W.; Bayles, T. B.; Massell, B. F.; Forsham, P. H.; Hill, S. R.; Smith, S., and Warren, J. E.: Studies on the Relation of Pituitary-Adrenal Function to Rheumatic Disease, New England J. Med. **24**: 529, 1949.

2. (*a*) Selye, H.: The Pharmacology of Steroid Hormones and Their Derivatives, Rev. canad. de biol. **1**: 577, 1942. (*b*) Pearlman, W. H., and Pincus, G.: The Metabolism of Pregnenolone, Federation Proc. **5**: 79, 1946.

3. Pincus, G., and Hoagland, H.: Effects of Administered Pregnenolone on Fatiguing Psychomotor Performance, J. Aviation Med. **15**: 98, 1944.

both animals [4] and man.[5] Davidson and Koetz [6] have already commented favorably on its possible value in ankylosing spondylarthritis. In addition, its efficacy by mouth [7] has decided advantages to the patient over the parenteral administration necessary with pituitary adrenocorticotropic hormone or cortisone.

SUBJECTS AND METHODS

The patients selected for the study presented definite evidence of rheumatoid arthritis according to the standards of the New York Rheumatism Association as presented in the article by Steinbrocker, Traeger and Batterman.[8] In the evaluation of the data, the patients were classified according to the degree of progression of the disease (stages 1 to 4, slight osteoporosis to bone destruction and ankylosis); by the amount of limitation of functional activity (classes 1 to 4, no limitation to total incapacity), and finally by the response to therapy (grades 1 to 4, remission to unimprovement).

The patients included 30 subjects, 11 men and 19 women with ages ranging from 31 to 74 years, the average being 48. The duration of the disease varied from four months to twenty-nine years, the average being eleven years. So far as the disease process was concerned 6 had had only slight cartilage or bone destruction (stage 2), 14 had had decided cartilage or bone destruction (stage 3) and 10 had severe bone changes with ankylosis (stage 4). In the main, therefore, they represented a group in whom extensive disease had occurred. The functional capacity of the patients was limited to a varying degree. One had no limitation of activity (class 1); 12 were able to carry on their usual activities despite the handicap of discomfort or limited motion in the joints (class 2); 15 could function to a limited degree (class 3), and 2 were almost entirely incapacitated. Thus, in 17 of the 30 subjects there had been sufficient damage from the disease to curtail their activities to a pronounced degree.

After the initial examination, which included roentgenograms, chiefly of the hands, blood cell counts and sedimentation rates, the subjects were given pregnenolone or pregnenolone acetate in 100 mg. tablets. The dose varied from 300 to 700 mg. daily, the average being 500 mg. The usual duration of treatment at the time of this report was six weeks, the range extending from two to eleven weeks. The patients were seen at weekly intervals, and at irregular intervals repeat examinations were made of the white blood cell count, sedimentation rate and circulating eosinophils, the last to serve as an estimation of the state of reactivity of the adrenal cortex. Weights, blood pressure and pulse rates were measured routinely. Urinalyses were made at intervals because of the possible complication of diabetes mellitus, and in a small group neutral urinary steroid determinations were undertaken, with methods previously described.[9]

On the basis of their response to the therapy, the patients were divided into groups according to the criteria of Steinbrocker, Traeger and Batterman [8] into major improvement (grade 2), minor improvement (grade 3) and unimprovement (grade 4). Grade 1 was not included, owing to the brief period of observation.

RESULTS

Major Improvement (Grade 2).—Of the entire group of patients, 15 subjects (7 men, 8 women) by the aforementioned criteria [8] showed a major degree of improvement consisting of diminution of pain, decrease in swelling, increase in mobility of joints and increase of functional capacity. The improvement was noted, as a rule, within a week and occasionally only during the second week of medication. The course was usually progressive. A concomitant lessening of fatigue accompanied the symptomatic improvement. In the cases in which there had been extensive damage to the bones, residual deformities and weakness were still present. The average chronologic age of this group was 44 years (range 31 to 65); the average age at the onset of symptoms was 30 years (range 17 to 63); the average duration was fourteen years (range two to twenty-nine). In regard to the degree of progression of the arthritic condition, 2 subjects were in stage 2, 9 in stage 3 and 4 in stage 4. In regard to functional capacity, 6 were in class 2 and 9 in class 3. In view of the fact that over half the patients showed extensive damage to the affected joints and in addition were initially decidedly limited in their functional capacity, the extent of the improvement was encouraging.

The sedimentation rates were initially abnormal in 10 patients and normal in 3. At the end of the period of medication, the sedimentation rate was normal in 5 and was still high in 8. In 4 of the latter group there was a distinct trend toward the normal. The change toward the normal occurred after several weeks of medication. It did not parallel the symptomatic improvement, and indeed by clinical experience, as exemplified in Steinbrocker's [8] paper, patients showing major improvement may still exhibit elevated sedimentation rates.

Circulating eosinophils were measured as an index of adrenocortical reactivity in 8 subjects. The initial values varied widely from 50 to 763 per cubic millimeter. The average was 279 per cubic millimeter, which is within normal limits. No parallelism could be noted between the clinical state and the number of circulating eosinophils within the patients. After treatment had gone on for about a month, the eosinophils were again counted. The mean value was 293 per cubic millimeter, an insignificant change. The count decreased in 4 subjects and increased in the other 4. In general, the initially higher figures tended to decrease and the initially lower values tended to increase, so that the distribution of values after medication is much more limited than before. There seemed to be no consistent relationship between the changes in the sedimentation rate and the level of the circulating eosinophils.

In view of the rapid recurrence of symptoms following discontinuation of treatment with pituitary adrenocorticotropic hormone and cortisone, the relapse rate is of interest. Eight of the 15 patients had their medication discontinued; 6 of these were given placebo tablets. Of the 6 remaining, 1 is maintaining his improvement after two weeks, 1 after four weeks, 1 after five weeks, 1 after six weeks and 1 for four months. It would seem, then,

4. Albert, S., and Selye, H.: The Effect of Various Pharmacological Agents on the Morphogenetic Actions of Estradiol, J. Pharmacol. & Exper. Therap. **73**: 308, 1942. Clarke, E., and Selye, H.: The Action of Steroid Compounds on the Vaginal Epithelium of the Rat, Am. J. M. Sc. **204**: 401, 1942. Clarke, E.; Albert, S., and Selye, H.: Influence of Various Steroids on Development of Castration Changes in Hypophysis of Rat, Anat. Rec. **83**: 449, 1942.

5. Pincus, G., and Hoagland, H.: Effects on Industrial Production of the Administration of Δ⁵ Pregnenolone to Factory Workers, Psychosom. Med. **7**: 342, 1945. Pincus, G.; Hoagland, H.; Wilson, C. H., and Fay, N. J.: Effects on Industrial Production of the Administration of Δ⁵ Pregnenolone to Factory Workers, ibid. **7**:347, 1945.

6. Davidson, R., and Koetz, L.: in Progress in Treatment of Rheumatic Disorders: International Congress of Rheumatology, Brit. M. J. **2**: 134, 1949.

7. Footnotes 3 and 5.

8. Steinbrocker, O.; Traeger, C. H., and Batterman, R. C.: Therapeutic Criteria in Rheumatoid Arthritis, J.A.M.A. **140**:659 (June 25) 1949.

9. Pincus, G.: The Analysis of Human Urines for Steroid Substances, J. Clin. Endocrinol. **5**:291, 1945.

that the improvement continues for longer periods of time than with pituitary adrenocorticotropic hormone and cortisone. The rapidity with which the symptoms recur does not seem to be related to the duration of therapy, the degree of improvement or any known specific characteristics of the clinical picture.

Of the 8 subjects in whom treatment was discontinued, the patient who relapsed most rapidly had a normal sedimentation rate but in the other 2 who relapsed the sedimentation rate was still elevated. Of the 5 who have maintained their improvement 3 had a normal sedimentation rate, 1 had an elevated rate and in 1 it was not determined. The data, though inadequate, suggest that a longer period of remission of symptoms might be obtained if the medication were to be continued until the sedimentation rate becomes normal.

Moderate Improvement (Grade 3).—There were 11 subjects who achieved a degree of improvement graded as mild (grade 3). They included 2 men and 9 women.

TABLE 1.—*Relationship Between Progression of Disease (Rheumatoid Arthritis) and Therapeutic Response to Pregnenolone*

Progression of Disease Stages	Therapeutic Response, Grades		
	2 Striking	3 Mild	4 None
2 Mild	2	4	..
3 Pronounced	9	4	1
4 Severe	4	3	3

TABLE 2.—*Relationship Between Functional Capacity in Rheumatoid Arthritis and Therapeutic Response to Pregnenolone*

Functional Capacity Class	Therapeutic Response, Grades		
	2 Striking	3 Mild	4 None
1 No limitation	..	1	..
2 Slight limitation	6	5	1
3 Decided limitation	6	7	2
4 Totally incapacitated	..	1	1

The chronologic age was on an average 50 (range 31 to 74). The age at onset was on an average 41 years (range 18 to 64). The average duration of the disease was nine years (range one-third to twenty-six years). From the point of view of progression of the disease, the subjects were classified as follows: 4 in class 2; 4 in class 3, and 3 in class 4. Seven of the 11 patients, therefore, showed evidences of severe destructive processes. Functionally, however, they were not quite so incapacitated. One was in class 1; 5 were in class 2; 4 were in class 3, and 1 was in class 4. Thus, half of the patients showed definite limitation of activities and only 1 was extremely crippled. They were given medication on an average of 5.8 weeks (range three to ten). Sedimentation rates were determined before medication on 10 of the subjects. In 2 the rates were normal and in 8 rapid. After medication, data were obtained on 7 subjects. Of these, 2 with a previously abnormal sedimentation rate showed a subsequent normal rate of fall. Four others showed a persistently high rate, although in 2 it was less rapid than it had been.

The circulating eosinophils were measured in 7 patients before medication. The mean was 331 cells per cubic millimeter and the range was 120 to 881. In 4 subjects values were obtained before and after medication. Before treatment the mean was 285 cells (range 120 to 394) and after medication the mean was 236 cells (94 to 481). Three of the 4 subjects showed a decrease in eosinophils and 1 showed an increase. Administration of the medicament to 8 patients was discontinued after varying periods of time, 4 being given placebos. On 2 subjects follow-up data were not obtained. In 3 patients there has been no recurrence of symptoms; in 1 there was a recurrence after three weeks (sedimentation rate fast), in 2 after six weeks. In 3 subjects relapses occurred, in 2 within one week after discontinuation of the drug (fast sedimentation rates), in 1 within two weeks (normal sedimentation rate). Again the evidence is suggestive that a normal sedimentation rate predisposes to a longer remission.

Lack of Improvement (Grade 4).—Four patients showed no improvement. They included 1 man and 3 women. Their chronologic ages varied from 45 to 70 years, the mean being 56. The disease was first noted on the average at age 48 (range 38 to 60), so the average duration of the disease was eight years (range three to fifteen). The disease had progressed extensively in all, 1 being at stage 3 and the others at stage 4. So far as functional activity was concerned, the patient who had the least progression had only a mild degree of limitation of function (class 2) while 2 of the others had severe impairment (class 3) and the fourth was practically bedridden. They were treated for an average of five weeks (range three to eight). Sedimentation rates were abnormally high in the 3 patients in whom it was obtained. After a period of therapy rechecks showed no change. The reason for the lack of therapeutic response in these cases is unknown. Since these cases on the whole represented a further progression of the disease than the other groups, it may be that factors inherent in the condition limit the reactivity of the patient.

Analysis of Data.—The data were analyzed to determine whether the response to therapy depended on the degree to which the disease had progressed. Table 1 shows that the largest number of subjects with a striking improvement (grade 2) had a pronounced involvement (stage 3). Since 4 of the 10 patients with severe progression (stage 4) showed a striking improvement also, it is evident that the prognosis for such patients may be more hopeful than would at first be considered.

A similar analysis (table 2) was undertaken for the relationship between the therapeutic response and the functional capacity of the patient at the initial examination. Again it is obvious that as many patients do well who have had decided limitations in their activity (class 3) as those whose condition has hampered them to only a mild degree (class 2).

No difference could be seen between the results of treatment with pregnenolone or pregnenolone acetate. Initially, the patients were maintained solely on either medicament, but with the development of the study the two drugs were used interchangeably in successive weeks.

No toxic effects were noted with either compound: Weights, heart rates and blood pressures were unaffected. Several patients with hypertension were included in the study, but no change was noted in the blood pressure. Glycosuria was not seen. Two diabetic persons are included in the series, one with mild and one with severe disease. The diabetic condition was unaffected. No effect was noted on the menstrual cycles of premenopausal women. There were occasional mild complaints of increased or decreased fre-

quency of urination, slight constipation or infrequently of headaches, but no symptoms were serious or maintained over a long period of time.

Urinary steroid determinations were made before and during the first week of pregnenolone administration in 7 patients on twenty-four to forty-eight hour urine collections. The mean data are summarized in table 3. Although the data are inadequate for detailed analysis, certain deductions are obvious: (*a*) during therapy there is generally an increase in output of all types of steroids measured; (*b*) there is no clear relationship of excretionary change to degree of improvement. The Zimmerman reaction measurement includes 20-ketosteroids as well as 17-ketosteroids, so that the increase might be attributed to excreted pregnenolone, but the antimony trichloride ($SbCl_3$) reaction excludes pregnenolone, because it is very nearly specific for androsterone and its isomers.[19] It follows, therefore, either that pregnenolone is metabolized to androsterone-like substances or that it stimulates the adrenals to produce 17-ketosteroid precursors. The nonketonic steroid change might be attributed to an increased excretion of pregnanediol, since this substance is a metabolite of pregnenolone,[5b] but other metabolites are not excluded. Further study is obviously indicated.

TABLE 3.—*Excretion of Neutral Urinary Steroids in Patients Showing Varying Degrees of Improvement*

Therapeutic Response Grade	Number of Patients	17-Ketosteroids, Zimmerman Reaction, Mg. per Hour		17-Ketosteroids, $SbCl_3$ Reaction, Mg. per Hour		Nonketonic Steroids, $SbCl_3$ Reaction, Mg. per Hour	
		Before Rx	Rx	Before Rx	Rx	Before Rx	Rx
2	2	0.30	0.47	0.25	0.30	0.22	0.14
3	3	0.27	0.59	0.14	0.43	0.16	0.25
4	2	0.41	0.55	0.21	0.32	0.30	0.33
All patients	7	0.32	0.54	0.20	0.36	0.19	0.24

COMMENT

It is evident from the results that with the regimen pursued approximately half the patients treated with pregnenolone showed a decided improvement. Approximately 30 per cent of the others showed some degree of amelioration of symptoms. Approximately 20 per cent showed no change.

The reasons for the variation in response is as yet unknown. There seems to be no relation between the degree of progression of the disease or of limitation of activity to the degree of response. The sedimentation rates before medication are essentially the same for the three groups, as are also the circulating eosinophil values. There does not seem to be a factor in the aging process in relation to the therapeutic response, since of the 15 subjects who achieved a striking benefit (grade 2) 8 were over 40 years of age while the other 7 were under 40. Sex is not an important factor: of these 15, 7 were men and 8 were women.

The degree to which psychologic factors influenced the improvement is not easy to estimate. In view of the wide publicity attendant on the therapeutic success with pituitary adrenocorticotropic hormone and cortisone, an aura of hope inevitably colored the reaction of the patients to the therapy. In some of the patients placebo medication was used for the first two weeks. The results were varying, but in no case was any appreciable change noted. Nevertheless, it is possible that in some of the patients who experienced mild improvement the compound may have had little therapeutic effect. Against this supposition is the long duration of the disease in these patients (average nine years), during which time they had tried the usual gamut of treatments without successful results and with a consequent tendency to pessimism in their outlook.

When there was striking benefit, there was no doubt in the minds of the observers of the efficacy of the material; the improvement of the patients was consistent in both type and temporal onset. In addition, the tendency to relapse on placebo medication noted in 3 of 6 patients with mild improvement and 3 of 6 with striking improvement, with resumption of improvement on hormonal therapy, militate against the supposition of purely psychologic effects.

The relapse after discontinuance of pregnenolone therapy is not as rapid as that after treatment with cortisone or pituitary adrenocorticotropic hormone.[1a] Eight of 14 patients have maintained their stage of improvement for an average of six weeks (range two to sixteen). The changes produced on the tissues by pregnenolone, although not as rapid as with these other medicaments, seem not to be of as transient a nature. A more mature judgment must await a longer period of observation.

Pregnenolone does not reduce the sedimentation rate as rapidly or as consistently as does cortisone or pituitary adrenocorticotropic hormone. Whether this difference is due to a less striking effect of the material on the arthritic condition or to a qualitative variation in the effect on the disease process is as yet unknown. The effect of the pregnenolone on the circulating eosinophils is likewise not similar. Pituitary adrenocorticotropic hormone and cortisone[1b] consistently depress the values of this type of blood cell, but with pregnenolone therapy the values may increase or decrease equally in patients showing a clinically comparable degree of improvement. It may be that the relative eosinophilia may be due to the adrenocortical sparing action of the hormone, as noted in the stress studies of Pincus and Hoagland.[9] If it is considered that arthritic symptoms are due to desoxycorticosterone-like substances produced endogenously, then pregnenolone (or a metabolite) may act as an analogue to desoxycorticosterone, blocking its typical action.

Whatever the mode of action of the compound, approximately 50 per cent of our patients with rheumatoid arthritis improve decidedly and up to 30 per cent more improve to a lesser degree on the administration of pregnenolone. The lack of toxicity of this steroid and its ease of administration make it worthy of more extensive trial, especially in view of the scarcity and the inconvenience of administration of pituitary adrenocorticotropic hormone and cortisone. It may serve to minimize the number of patients for whom the latter hormones are essential and may serve possibly to maintain those in whom those hormones give initial improvement.

It should be emphasized, however, that the results achieved in this study are in a preliminary stage. Lack of adequate control studies makes it impossible to estimate accurately either the possibility of spontaneous improvement or the influence of psychologic factors. However, in view of the long duration of the disease in these patients and the multiplicity of previous treatments, it is not considered that either factor introduced serious errors in the evaluation of the results. Neverthe-

10. Pincus, G.: New Color Reaction for Certain Urinary 17-Ketosteroids, Endocrinology **32**: 176, 1943.

less, a more systematic investigation and more prolonged periods of therapy are desirable before final conclusions concerning the value of this type of therapy.

SUMMARY

A total of 30 patients with rheumatoid arthritis of varying degrees were given pregnenolone or pregnenolone acetate orally for an average of six weeks, the dosage averaging 500 mg. daily. Fifteen patients experienced striking relief; 11 patients showed a mild degree of improvement, and 4 patients did not obtain improvement. Of 16 subjects in whom treatment has been discontinued, improvement has been maintained an average of six weeks. No toxic effects were noted.

EARLY DIAGNOSIS OF GASTRIC CANCER

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Gastric cancer, because of its frequency and the insidiousness of its clinical course, presents a real problem to all concerned with its diagnosis and treatment. The end results of surgical treatment are influenced remarkably by the stage of development of the gastric cancer at the time of surgical intervention, for, when no metastases are present, the five year survival rate is approximately 60 per cent, whereas with node metastases the survival rate is less than 5 per cent.[1] Unfortunately, by the time the patient has only vague symptoms due to gastric carcinoma, the disease is usually far advanced. In order that early diagnosis may be made, patients with gastric cancer in the silent phase or, preferably, those persons who might be potential harborers of gastric cancer must be identified.

At the Gastric Cancer Conference held in Chicago in 1946,[2] our initial experiences with this study were reported. We felt the preliminary results of the study were sufficiently encouraging to warrant its continuation. In this presentation our observations to date will be reported.

MATERIAL AND METHOD

Patients in the following groups were considered to be potential harborers of silent gastric carcinoma and were set aside for special study. The patients, outpatient clinic registrants at the University Hospitals, were past the age of 50 years and were free of digestive complaints.

Group 1, Patients with Achlorhydria and Hypochlorhydria.—Three successive doses of 0.5 mg. of histamine phosphate were administered at twenty minute intervals to stimulate the flow of gastric acid in patients in group 1. Free hydrochloric acid was tested for with Töpfer's reagent and phenolphthalein as indicators. Gastric roentgenograms were made of those patients with achlorhydria. These examinations consisted of fluoroscopic observations made after the ingestion of barium; an appropriate number of routine and spot films were taken for permanent records and to facilitate the diagnosis of obscure lesions. In a number of instances, usually because of reactions, patients were not given the three conventional doses of histamine phosphate. These patients have been designated separately, according to the number of histamine phosphate injections given.

In 1940 Wetherby,[3] of our institution, reported on a group of persons who were observed to be achlorhydric after a single injection of 0.5 mg. of histamine phosphate. As many of these patients as possible were recalled for repeat gastric analyses and roentgenograms of the stomach.

A number of patients had free hydrochloric acid after histamine stimulation, but in reduced amounts. If the maximum amount of free hydrochloric acid did not exceed 30 degrees, patients with this condition were designated as hypochlorhydric and gastric roentgenograms were made.

Group 2, Patients with Pernicious Anemia.—The group of patients with pernicious anemia included previously observed as well as new patients. The diagnosis in each case was confirmed by bone marrow studies. Gastric analyses, gastric roentgenograms and, whenever possible, gastroscopic examinations were made of these patients. Frequent gastric roentgenograms had been made of many of the previously observed patients with pernicious anemia, for these patients had been studied carefully by Drs. Rigler, Kaplan and Fink.[4]

Group 3, Persons with a Positive Family History of Gastric Carcinoma.—The living blood relatives of patients who had been operated on at the University Hospitals for gastric carcinoma were contacted and requested to report for gastric analyses as well as gastric roentgenograms. In this group, although gastric analyses were done routinely, gastric roentgenograms were made of all persons, regardless of whether or not they showed free hydrochloric acid in the gastric juice.

Groups 4 and 5, Patients with Hemoglobin Values of 11.0 Gm. or Less and/or Occult Blood in the Stool.—From July 1946 patients with hemoglobin values of 11.0 Gm. or less and/or occult blood in the stool were also studied in an effort to include more persons potentially harboring gastric cancer. The guaiac test was used to determine the presence of occult blood. Whenever possible, the patient was placed on a meat-free diet for three days prior to the test. Gastric roentgenograms were made of these patients regardless of the degree of free hydrochloric acid observed on gastric analysis.

OBSERVATIONS

From July 1, 1945 to April 1, 1949 gastric analyses were done on 3,921 persons.

Group 1, Patients with Achlorhydria and Hypochlorhydria.—The incidence of achlorhydria and hypochlorhydria in this group is shown in table 1. Roentgen examination revealed 38 gastric polyps and 8 gastric carcinomas in 1,450 persons with achlorhydria and hypochlorhydria (table 2). In addition to the find-

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Read before the Joint Meeting of the Section on Pathology and Physiology and the Section on Gastroenterology and Proctology at the Ninety-Eighth Annual Session of the American Medical Association, Atlantic City, N. J., June 10, 1949.

The researches presented here were supported by the following grants: National Cancer Institute, United States Public Health Research Grant C-298-(C1), The Flora L. Rosenblatt Fund for Cancer Research and the Malignant Disease Research Fund of the University of Minnesota.

1. State, D.; Moore, G., and Wangensteen, O. H.: Carcinoma of the Stomach, J. A. M. A. **135**: 262 (Oct. 4) 1947.

2. State, D.; Varco, R., and Wangensteen, O. H.: An Attempt to Identify Likely Precursors of Gastric Cancer, J. Nat. Cancer Inst. **7**: 379, 1947.

3. Wetherby, M.: Gastric Achlorhydria: A Clinical and Gastroscopic Study, Univ. Minnesota Hosp. Bull. **12**: 475, 1941.

4. Rigler, L. G.; Kaplan, H. S., and Fink, D. L.: Pernicious Anemia and the Early Diagnosis of Tumors of the Stomach, J. A. M. A. **138**: 426 (June 9) 1945.

ings shown in tables 1 and 2 there have been 20 cases involving questionable gastric polyps, that is, cases in which the roentgenographic findings were suggestive but not conclusive. In 2 patients gastric cancers were missed through organizational errors in the early part of the study. A gastric cancer in a third patient was overlooked because of misinterpretation of the roentgenograms. This latter carcinoma was found at the time of operative procedures performed on this patient for an unrelated condition. These 3 cases are included in this report because they indicate the potential number of patients with gastric carcinoma who might have been found in this survey. Of the 8 carcinomas, 5 were early, well localized and without metastases; the remaining 3 were further advanced and had lymph node metastases.

Group 2, Patients with Pernicious Anemia.—One hundred and eighty-seven roentgen examinations of the stomach revealed 4 gastric polyps (4.2 per cent) and 3 gastric carcinomas (3.2 per cent) in 94 (50 new and 44 previously examined) patients with pernicious anemia. One additional questionable gastric polyp was found. Two gastric polyps were found by gastroscopic examination, although they were not seen in the gastric roentgenograms. Of the 3 cancers, 2 were without lymph node metastases at the time of surgical intervention.

Group 3, Relatives of Patients with Gastric Cancer.—Seventy-eight roentgen examinations of the stomach revealed no gastric polyps and no gastric carcinomas in 81 relatives of patients with gastric cancer.

Group 4, Patients with Hemoglobin Levels of 11.0 Gm. or Less.—Sixty-two roentgen examinations of the stomach revealed no gastric polyps and no gastric carcinomas in 62 patients with hemoglobin levels of 11.0 Gm. or less.

Group 5, Patients with Occult Blood in the Feces.—Sixty-three roentgen examinations of the stomach revealed no gastric polyps and no gastric carcinomas in 87 patients with occult blood in the feces.

In all the groups studied (table 3), 2,390 gastrointestinal roentgen examinations were made on 1,774 persons, and 42 gastric polyps (2.9 per cent) and 11 gastric carcinomas (0.6 per cent) were found.

COMMENT

Group 1, Patients with Achlorhydria and Hypochlorhydria.—The frequent association of achlorhydria with gastric carcinoma suggests the validity of the acceptance of the criterion of achlorhydria in surveys aimed at the detection of gastric cancer. Hebbel and Gaviser [5] found that, after histamine stimulation, about 65 per cent of the patients with gastric carcinoma have achlorhydria and an additional 21 per cent show hypochlorhydria (less than 30 degrees free acid). In contrast to the high incidence of achlorhydria and hyperchlorhydria seen with gastric cancer, it has been noted [6] that achlorhydria and hypochlorhydria are not consistently seen with extragastric carcinoma, for in this group the incidence of achlorhydria and hypochlorhydria was about 30 per cent, a circumstance which appears to be the same for persons of the same age group who do not have carcinoma.

5. Hebbel, R., and Gaviser, D.: The Relationship Between Gross Types of Gastric Carcinoma and Anacidity, Surgery **24**: 312, 1948.

6. Niari, S.; State, D., and Wangensteen, O. H.: The Relationship of Gastric Acidity to Gastric and Extra-Gastric Neoplasms, Surgery **26**: 131, 1949.

The studies of St. John, Swenson and Harvey in 1944 [7] and Dailey and Miller in 1945 [8] indicated the need for some practical plan for screening out those patients most likely to be harboring a silent gastric carcinoma. The former group of investigators made a brief fluoroscopic examination, after the ingestion of barium, of the stomachs of 2,413 patients over the age of 50 without gastric complaints. In this group of patients 2 silent gastric cancers and 1 lymphosarcoma were found. No gastric polyps were encountered. Dailey and Miller in 1945 [8] made gastric roentgenograms on 500 presumably normal men over the age of 50 who were free of digestive complaints. Three gastric lesions were found, 1 benign gastric ulcer, 1 polyp and 1 antral gastritis. In this study of precursors the use of achlorhydria and hypochlorhydria as "filters" has permitted the discovery of a greater number of unsuspected gastric carcinomas for a given number of roentgen examinations of the stomach (table 4). In 1,544 patients with achlorhydria and hypochlorhydria, 11 gastric cancers and 42 gastric polyps were found. It is of significance to note, also, that of the 11 gastric carcinomas, 7 were still limited to the stomach and had no lymph nodes metastases at the time of surgical intervention. The remaining 4 had metastases to regional lymph nodes, but gastric resections were carried out.

Group 2, Persons with Pernicious Anemia.—The relationship of pernicious anemia and gastric carcinoma has been noted by a number of observers (Rhoads,[9] Borrmann [10] and Rigler [11]). In our previous report,

TABLE 1.—*Incidence of Achlorhydria and Hypochlorhydria*

Category	Patients	Male	Female	Gastrointestinal Roentgen Examinations
Achlorhydria from histamine phosphate				
3 doses	569	372	197	942
2 doses	259	145	114	358
1 dose	309	148	161	337
Wetherby group [3]	110	72	38	108
Hypochlorhydria	203	109	94	175
Total	1,450	846	604	2,000

TABLE 2.—*Results of Examination in Achlorhydric and Hypochlorhydric Patients*

Category	Patients	Gastrointestinal Roentgen Examinations	Findings	
			Gastric Polyp	Gastric Cancer
Achlorhydria	1,137	1,657	29	6
Hypochlorhydria	203	175	3	1
Wetherby group [3]	110	168	6	1
Total	1,450	2,000	38 (2.6%)	8 (0.5%)

7. St. John, F. B.; Swenson, P. C., and Harvey, H. D.: Experiments in the Early Diagnosis of Gastric Carcinoma, Ann. Surg. **119**: 225, 1944.

8. Dailey, M. E., and Miller, E. R.: Research for Symptomless Gastric Cancer in Five Hundred Apparently Healthy Men of Forty-Five and Over, Gastroenterology **5**: 1, 1945.

9. Rhoads, C. P.: Gastric Cancer As a Sequel to Gastritis, Particularly the Gastritis of Pernicious Anemia, J. Nat. Cancer Inst. **1**: 511, 1941.

10. Borrmann, R.: Geschwulste des Magens und Duodenums, in Henke, F., and Lubarsch, O.: Handbuch der speziellen pathologischen Anatomie und Histologie, Berlin, Julius Springer, 1926, vol. 4, pt. 1, pp. 812-1054.

11. Rigler, L. G.: Pernicious Anemia and the Early Diagnosis of Carcinoma of the Stomach, Radiology **41**: 187, 1943.

which included 79 patients with pernicious anemia, no gastric carcinomas or polyps were found. We felt that this was due to the fact that we were examining a group of patients who had undergone careful scrutiny just a short time previously by Dr. Rigler and his co-workers. The discovery, made since our initial report, of 3 gastric cancers and 4 polyps in 94 patients with pernicious anemia would tend to confirm the suggestion that a greater than normal incidence of gastric neoplasms is to be anticipated in patients who have pernicious anemia. Too, it stresses the need for frequent gastric roentgenograms of patients with pernicious anemia.

Group 3, Persons with a Family History of Gastric Carcinoma.—In our initial report we noted that the incidence of gastric cancer was 15.6 per cent in the families of patients with gastric carcinoma. In the families of patients with gallbladder disease, the incidence of gastric carcinoma was 10 per cent; in the families of patients with colonic cancer, it was 9.4 per cent, and in the families of patients with hemorrhoids, it was 12 per cent. This increased incidence of gastric cancer in the families of patients with gastric carcinomas was, not statistically significant. It was our feeling, however, that relatives of patients with gastric carcinoma should be studied. Responses to our requests were extremely poor. We wrote or contacted over 200 persons, but only 81 appeared for examination. In this group of 81 persons, 78 gastrointestinal roentgen examinations were made and no gastric carcinoma or polyps were found.

Groups 4 and 5, Patients with Hemoglobin Levels Below 11.0 Gm. and Patients with Occult Blood in the Stool.—The number of persons in these two categories is small, 62 and 87, respectively, and no gastric neoplasms were found. A large number of patients in the study had low hemoglobin values and/or occult blood in the stools, but definite causes for these abnormalities were noted. In addition, a number of these persons also had achlorhydria or hypochlorhydria and consequently were placed in group 1. Therefore, the persons that appear on our records in these groups represent those who do not fall into the other categories in the study.

Group 6, Persons with Gastric Polyps.—Forty-two gastric polyps have been uncovered in this study. Although many authors (Borrmann[10] and Rigler[11] among others) have indicted polyps of the stomach as precancerous lesions, their actual fate is difficult to evaluate in any given circumstance, as Spriggs and Marxer[12] have indicated. It has been one of the purposes of this study to attempt to secure a more satsisfactory answer to the problem of whether or not gastric polyps do become cancerous. To this end, in addition to the 42 polyps discovered in this study, the case records of 47 additional patients with known gastric polyps have been culled from the hospital records from 1936 to the time of writing (table 5). In each instance the diagnosis of polyps has been made only after roentgenographic or gastroscopic examinations or both.

To the time of writing, 31 of the 89 patients with gastric polyps have been operated on. In 7 instances the polyps were found to be cancerous by histologic examination. In the group of patients with the 42 polyps discovered in this study of gastric cancer precursors, 11 have been operated on. In 3 instances the polyps removed were diagnosed as adenocarcinoma, and in one instance there were metastases to the regional lymph nodes. There is a question whether the cancerous polyps which were discovered had arisen from previous benign polyps or whether they had been cancerous from their onset. Although no definite answer can be given to the problem of cancerous degeneration of benign polyps, it is important to notice that in 89 cases 7 polyps were cancerous, an incidence of 7.8 per cent. Further studies are being carried out to determine the criteria which indicate the presence of cancerous changes, and efforts are being made to determine the eventual fate of all gastric polyps under our observation.

TABLE 3.—*Observations in a Study to Uncover Early Silent Gastric Cancers (July 1, 1945 to April 1, 1949)*

Groups	Number of Patients	Gastrointestinal Roentgen Examinations	Findings	
			Polyps	Cancers
1. Patients with achlorhydria	1,137	1,657	29 (plus 14 questionable)	6 (plus 1 questionable) *
Patients with hypochlorhydria	980	175	3	1
Wetherby group [9]	110	168	6 (plus 6 questionable)	1
2. Patients with pernicious anemia	94 (50 new, 44 previously examined)	187	4 (plus 1 questionable)	3
3. Relatives of patients with gastric cancer	81	78	..	..
4. Patients with hemoglobin levels of 11 Gm. or less	62	62	..	..
5. Patients with occult blood in the feces	87	63	..	..
Total	1,774	2,390	42 (2.9%)	11 (0.6%)

* Two additional cancers were missed through organizational errors. A third carcinoma was overlooked because of misinterpretation of roentgenograms.

CANCER DETECTION CENTER

Largely as a result of the stimulus given to the problem of uncovering early, silent carcinomas in the study of gastric cancer precursors, the Cancer Detection Center was set up at the University of Minnesota in March 1948. The persons examined at the Center are apparently in good health and over the age of 45. Before coming to the Cancer Detection Center the patients are placed on a meat-free diet for three days and are requested to bring in a stool specimen, which is examined for occult blood both by the benzidine and guaiac technics. In addition to the routine physical

12. Spriggs, E. I., and Marxer, O. H.: Polyps of the Stomach and Polypoid Gastritis, Quart. J. Med. **12**: 1, 1943.

examination, all persons are given complete blood and urine examinations, a routine proctoscopic examination and a gastric analysis, with a single dose of 0.5 mg. of histamine phosphate as a gastric secretion stimulant. Women are given a pelvic examination by a gynecologist, and recently smears, stained by the Papanicolaou technic, have been taken of vaginal and cervical secretions. A photofluorogram of the chest is made in each case, and if there are any abnormal findings a routine chest plate is obtained.

In an effort to interpose practical filters, gastric roentgenograms are made on the following persons: (1) patients with achlorhydria or hypochlorhydria (less than 30 degrees free acid); (2) patients with occult blood in the stool; (3) patients with unexplained hemoglobin levels below 11.0 Gm., and (4) patients with a family history of gastric cancer. Barium enemas

TABLE 4.—*Results of Studies for Determining Unsuspected Gastric Cancer*

Investigators	Patients Receiving Gastrointestinal Roentgen Examinations	Findings
St. John, Swenson and Harvey (1944) [7]	2,433, over age 50, without gastric complaints	2 carcinomas 1 lymphosarcoma
Dailey and Miller (1945) [8]	500 men, over age 45, presumably free of digestive complaints	1 benign gastric ulcer 1 gastric polyp 1 antral gastritis
University of Minnesota (1945 to 1949)	1,544, over age 50, free of digestive complaints, with histamine phosphate-induced achlorhydria and hypochlorhydria (less than 30° free acid)	11 gastric cancers 42 gastric polyps

TABLE 5.—*Gastric Polyps*

	Gastric Cancer "Precursor" Groups July 1, 1945 to April 1, 1949	Patients with Known Gastric Polyps Jan. 1, 1936 to April 1, 1949	Total
Number of patients with polyps	42	47	89
Number of patients operated on	11	20	31
Number of carcinomas	3 (7.1%)	4 (8.6%)	7 (7.8%)

are given to the following persons: (1) patients with occult blood in the stool; (2) patients with abnormal proctoscopic findings, such as polyps and bloody mucus; (3) patients with unexplained hemoglobin levels below 11.0 Gm., and (4) patients with a family history of colonic cancer.

OBSERVATIONS

From March 1, 1948 to April 30, 1949, 1,715 patients (860 men and 855 women) were examined. In this group of persons, 20 silent carcinomas have been found. The types of lesions and the organs involved are given in table 6. Of the 1,715 patients, 293 were achlorhydric and 189 were hypochlorhydric after administration of histamine phosphate. In this group 312 gastrointestinal roentgen examinations were made, and 1 person [13] with gastric carcinoma and 2 with a gastric polyposis were found. The gastric cancer that was found was 0.7 cm. in diameter and was confined entirely to the gastric mucosa.

13. Two additional patients with gastric carcinoma were found, but it was felt that these patients already had symptoms when seen at the Cancer Detection Center.

In addition to the previously noted carcinomas, 421 precancerous lesions have been discovered (table 7). Among these were 194 rectal polyps. The incidence of rectal polyps in this group of persons over age 45 was thus approximately 11 per cent. This figure is somewhat higher than previous reports in the literature

TABLE 6.—*Cancerous Lesions Found at the Cancer Detection Center*

Type of Carcinoma	Site	Number
Basal cell carcinoma	Skin	6
Squamous cell carcinoma	Skin	1
Squamous cell carcinoma	Esophagus	1
Adenocarcinoma	Stomach	1
Adenocarcinoma	Cecum	2
Adenocarcinoma	Sigmoid	3
Adenocarcinoma	Rectum	3
Adenocarcinoma	Prostate	1
Lymphosarcoma	.....	1
Chronic lymphatic leukemia	.....	1
Total	.....	20

would indicate, although Swinton [14] reported an incidence of rectal polyps of 7 per cent. It must be remembered, however, that the age group which we examined is a select one, consisting of persons over age 45, and, consequently, it might be expected that the number of rectal polyps would be greater in this group than in the younger age groups. We found, in 55 instances (table 8), lesions such as pelvic masses and tumors of the breast, which required further diagnostic studies to determine their exact nature. Persons with these conditions were sent back to their referring physician to have the appropriate diagnostic procedures carried out. A number of these lesions undoubtedly will be cancerous and will further increase the number of carcinomas uncovered at the Cancer Detection Center.

Considerable controversy exists at the present concerning the practicability and value of a cancer detection center. The pilot plant which we have set up at the University Hospital has as its prime purpose the evaluation of some of these points. Our center, we feel, differs from others in that, in addition to the routine physical examination and blood and urine examinations, a proctoscopic examination and a gastric

TABLE 7.—*Precancerous Lesions Found at the Cancer Detection Center*

Type of Lesion	Site	Number
Senile keratosis	Skin	36
Polyps	Stomach	2
Polyps	Rectum	194
Polyps	Vocal cord	1
Kraurosis	Vulva	6
Leukoplakia	Mouth	31
Pigmented nevi in area of irritation	Skin	122
Solitary adenomas	Thyroid	19
Total		411

analysis are done and an effort is made to determine whether occult blood is present in the stools.

If histamine-induced achlorhydria and hypochlorhydria and the presence of occult blood in the stool prove to be worth while preliminary tests to suggest the necessity for further roentgen studies of the gastrointestinal tract, particularly of the stomach and the

14. Swinton, N. W., and Hang, A. D.: Frequency of Precancerous Lesions of the Colon, Lahey Clin. Bull. 5:84, 1947.

colon, it is apparent that these are tests which may be done in the office of any physician who affects an interest in cancer. The devising of such filters, in the absence of specific biologic tests for cancer, will help to lessen the burden of roentgen studies which fall heavily on roentgenologists in the Cancer Detection Center.

TABLE 8.—*Lesions Requiring Further Diagnostic Procedures Found at the Cancer Detection Center*

Site of Tumor	Number
Adnexa	11
Breast	10
Lip	7
Tongue	7
Cervix uteri	7
Corpus uteri	4
Skin	4
Parotid	2
Abdomen	2
Lung	11
Axilla	1
Maxilla	1
Groin	1
Total	55

SUMMARY AND CONCLUSIONS

In an effort to uncover early silent gastric carcinomas and determine what conditions are most likely to favor the development of gastric cancer, patients in the following clinical groups have been scrutinized and considered to be possible harborers of gastric cancer: (1) patients over age 50 with achlorhydria and hypochlorhydria after administration of histamine phosphate; (2) patients with pernicious anemia; (3) relatives of patients with gastric cancer; (4) patients with unexplained hemoglobin levels below 11.0 Gm., and (5) patients with occult blood in the stools. Persons falling into these groups have been studied by means of gastric roentgenograms and in some instances by gastroscopic examination.

From July 1, 1945 to May 1, 1949, gastric analyses were made on 3,921 persons meeting these requirements; 569 were found to be achlorhydric after three successive doses of 0.5 mg. of histamine phosphate; 259 were achlorhydric after two consecutive doses of histamine phosphate and 309 were achlorhydric after a single 0.5 mg. dose of histamine phosphate. An additional 203 patients were found to be hypochlorhydric, that is, they had less than 30 degrees of free hydrochloric acid in their gastric juice. In this group, 1,832 gastrointestinal roentgen examinations were made. Seven silent carcinomas and 32 gastric polyps were found. In addition, 2 gastric carcinomas were missed through organizational errors and 1 through misinterpretation of the gastric roentgenogram.

In a group of 110 achlorhydric persons obtained from a previous study by Wetherby, 168 roentgenograms were made. One gastric carcinoma and 6 gastric polyps were found in this group.

Ninety-four patients with pernicious anemia had 187 gastrointestinal roentgen examinations. Three gastric carcinomas and 4 gastric polyps were found.

Roentgen examinations were made of 81 relatives of patients with gastric carcinoma, 62 patients with unexplained hemoglobin levels below 11.0 Gm. and 87 patients with occult blood in the stools. No gastric neoplasms were discovered in this miscellaneous group of 217 patients.

Forty-two gastric polyps were uncovered in this study of gastric cancer precursors. In 11 instances the patients were operated on, and, in this group, 3 adenocarcinomas were discovered. An additional 47 patients with known gastric polyps were culled from the hospital records and placed under observation. In this group 20 patients were operated on, and 4 carcinomas were found. The incidence of cancerous polyps in this group of 89 patients with gastric polyps under observation is thus approximately 8 per cent.

In the Cancer Detection Center, 1,715 patients over age 45 have been examined. In this group 20 silent carcinomas have been found, of which 1 was a gastric carcinoma. This carcinoma was less than 1 cm. in diameter and was confined entirely to the gastric mucosa. Two other patients were found to have gastric carcinomas, but on critical analysis it was felt that their symptoms, although vague, should have made one suspicious of the diagnosis, and hence they were excluded from this study. Two patients with gastric polyps were also noted. Rectal polyps were discovered in 194 patients, an incidence of approximately 11 per cent.

It is our belief that the results obtained in both the study of gastric cancer precursors as well as at the Cancer Detection Center suggest that it is both possible and practical to survey large groups of persons in an effort to uncover early silent carcinomas.

ABSTRACT OF DISCUSSION

DR. RUSSELL H. MORGAN, Baltimore: Dr. State's work focuses attention on the early diagnosis of gastric cancer. The use of the technic of gastric analysis as a preliminary screen of persons above age 50 has proved effective in the Minnesota group's hands. This screening procedure, according to the statistics presented this afternoon, condenses the group on which thorough follow-up studies should be done by a factor of 3 to 1. Since most of these follow-up procedures are time-consuming, the value of this preliminary screening is evident. For over a year my associates and I have been using photofluorographic roentgen films of the stomach rather than gastric analysis as a preliminary screening method at the Johns Hopkins Hospital. This procedure has proved extremely simple and yet reliable. One reason why we have followed this technic rather than that of gastric analysis was our concern over the patient's psychologic reaction to gastric analysis. It seemed that such a procedure would be too rigorous to permit its use as a widespread public health method for the examination of large population groups. I should like to ask Dr. State whether or not his technic can be applied to large groups. In our studies with photofluorography, we have been examining patients over age 40. However, the yield of gastric cancer in the age group between 40 and 50 so far has been extremely low. An interesting finding in Dr. State's study at the Cancer Detection Center is the presence of 3 silent gastric carcinomas in about 1,200 patients over age 45. Mortality statistics indicate that in this age group about 1 person in 1,200 dies from gastric cancer each year. Thus it appears that the incubation period for gastric cancer approaches three years in duration and is much longer than is generally believed. This fact has been borne out by the studies which we have done in Baltimore, and if further investigations bear out these data some of the present concepts regarding the development of gastric cancer will certainly require a change.

DR. ALEXANDER BRUNSCHWIG, New York: The impressions, frequently voiced, that achlorhydria, pernicious anemia and gastric polyposis are precancerous conditions are tested by

such studies as these, and in time definite answers based on factual data will be forthcoming. The point that patients are sought for examination whose family histories reveal gastric cancer is well taken. Even though the response was less satisfactory than desired and though the results of 78 gastrointestinal roentgen examinations were negative, this phase of the subject should certainly be pursued until statistically significant data are obtained. A negative result will be of importance. The whole question of mass surveys for gastric cancer must be investigated in special centers such as the one developed by the essayists at the University of Minnesota and must be carried to the final phase, namely, to answer the question of whether or not patients who have gastric cancer detected in the asymptomatic stage and who receive adequate surgical treatment have a better chance for prolonged survival than do those who receive the diagnosis after symptoms are manifested. The first impression is that they should stand a better chance for cure, but this impression is by no means definitely substantiated. Studies have been made that indicate that the macroscopic type of the lesion and the extent of spread is of greater prognostic importance than duration of symptoms. It will be necessary to accumulate records of considerable numbers of patients operated on as a result of the lesion having been discovered in the asymptomatic stage and to compare the end results of these with the results obtained in cases in which operation is carried out after symptoms have led to diagnosis. While this will require considerable time, the initial phases of the work have been developed, as is shown by this presentation. The argument that the effort and expense necessary to uncover asymptomatic gastric cancer in a single patient may prove so great that such surveys would be uneconomical cannot be taken seriously. There are two ways of looking at the problem. If the total expenditure of effort and money is divided by the number of positive results, the figure will be high for each patient found to have cancer; however, if the total number of patients examined is considered, the cost per patient will be low. If the rate of cure among the patients with asymptomatic gastric cancer who are operated on eventually proves to be appreciably higher than that obtained when operation is performed only after symptoms lead to diagnosis, ways and means will be evolved to make the mass surveys economically feasible; the widespread uses of mass surveys for the detection of intrathoracic lesions is an example of this. The whole problem in regard to gastric cancer is still in the investigative stage, and research in progress is always an uneconomical activity, yet this cannot be permitted to interfere with important problems in clinical investigation such as this one.

DR. DAVID STATE, Minneapolis: In answer to Dr. Morgan's question concerning the practicability of this technic of gastric analysis, unless the people of Minnesota differ strikingly from persons throughout this country I think it can be said that gastric analyses are well tolerated and that this examination can be done on a large number of persons in a practical manner. The silent phase of carcinoma has also intrigued us. We have attempted to study it in a little different fashion than has Dr. Morgan. In our clinic there are a number of persons who have been operated on for gastric carcinoma, and, because of the extent of the lesion, carcinoma cells have been left in the line of resection. We have watched these persons in an effort to determine whether symptoms will reappear early or late. In the main, these patients have gone from one and a half to two years after gastric resection without symptoms, even though residual carcinoma has been left in the gastric pouch. The life history of carcinoma is usually one of long duration, and the silent phase accordingly is also long. In this survey of 11 persons with gastric carcinoma, 7 had no lymph node metastases that could be determined either by gross or by microscopic examination. We agree with Dr. Brunschwig that the prognosis in carcinoma of the stomach depends on the state or the degree of growth of the carcinoma at the time that resection is done. Of particular importance is the matter of whether or not lymph node metastasis has occurred at the time of surgical intervention. If the results of this study in determining early gastric carcinoma remain as good as they have been in the past, we feel that the practical end results should be good.

AUREOMYCIN IN INFECTIOUS MONONUCLEOSIS

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Infectious mononucleosis is a disease of unknown causation, suspected of being virus in origin, for which no satisfactory treatment exists at present. The observation that aureomycin may be an effective therapeutic agent in certain diseases presumed to be of virus origin (primary atypical pneumonia and psittacosis) prompted a study of its effects in infectious mononucleosis. An epidemic of this disease in the north suburbs of Chicago during the winter of 1948-1949 afforded an opportunity for a controlled study.

All cases were seen in the private practice of one of us (M. H. S.). Preliminary diagnosis was made on the basis of clinical observations, i. e., fever, lymphoid swelling and inflammation of the nasopharynx, swelling of lymph nodes, headache, pain in the neck and fatigue. The diagnosis was tentatively confirmed by the finding of characteristic atypical lymphocytes in the stained blood smear.

On the first visit all patients were thoroughly examined; blood was withdrawn for white cell count, smear, heterophil agglutinins and cold agglutinins. The examining physician was furnished with two sets of capsules labeled "A" and "B." Capsules labeled "A" contained lactose colored yellow to resemble the capsules containing aureomycin,[1] labeled "B." Neither the patient nor the examining physician knew the content of the capsules. The control blood samples and all subsequent blood samples were sent to the laboratory under a code number, and those of us performing the tests (V. L. C. and W. V. W.) did not know the identity of the patients or the medicament they received. Several specimens from patients not suffering from infectious mononucleosis were included among those submitted; none of these gave positive heterophil or cold agglutinin tests or had atypical white cells in the blood smears.

Heterophil agglutinins were determined by the method of Paul-Bunnell as modified by Davidsohn.[2] Cold agglutinins [3] were determined by the method of Turner and others [4] as modified by Smadel.[5] Blood smears were stained with Wright's stain, and 300 cells were counted in estimating percentages.

Sufficient capsules for four days' treatment were furnished to each patient (total dose, 8 Gm.). The patients were instructed to take two capsules (0.25 Gm. each) before each meal and on retiring. In the case of children, the dosage was reduced to one capsule (0.25 Gm.) three or four times a day, depending on age. Patients were instructed to keep a daily written record of their temperatures and to report to the office one week later. They were warned that the drug might

Miss Collette Legris gave technical assistance in this study.

Chief of Section on Chest and Infectious Diseases, Department of Medicine, Evanston Hospital (Dr. Seifert).

1. Both the aureomycin and the placebo were furnished by Lederle Laboratories Division, American Cyanamid Company, Pearl River, N. Y.

2. Davidsohn, I.: Test for Infectious Mononucleosis, Am. J. Clin. Path. (tech. supp.) 8:56 (March) 1938.

3. Type O human red cells were furnished by the Blood Center of Michael Reese Hospital, Chicago.

4. Turner, J. C.; Nisnewitz, S.; Jackson, E. B., and Bernev, R.: Relation of Cold Agglutinins to Atypical Pneumonia, Lancet 1:765 (June 19) 1943.

5. Smadel, J. E.: Serologic Reactions in Viral and Rickettsial Infections, in Rivers, T. M.: Viral and Rickettsial Infections of Man, Philadelphia, J. B. Lippincott Company, 1948, chap. 3, p. 82.

produce nausea or other toxic effects and that if anything unusual occurred they were to report immediately.

On the second visit, after careful questioning and examination of the patient, a second blood sample was taken and if the patient reported no benefit from the medicament he was given a second course of treatment different from the first. That is, if he had received "A" at the first visit he was given "B," and vice versa. The patient was again seen one week later and a third blood sample taken. Additional blood samples were obtained from a majority of the patients two months after the start of medication.

RESULTS

Although a total of about 70 patients were seen during the course of the study, only 47 are suitable for analysis. In some, toxic effects prevented their taking the medicament; others failed to report for follow-up examinations. A few were discarded from the final analysis because of failure to meet the diagnostic criteria discussed hereafter. We believe, however, that most of these had infectious mononucleosis because of their symptoms and because they were members of the families of patients with proved infection.

TABLE 1.—*Results of Aureomycin Versus Placebo Therapy in "Confirmed" Infectious Mononucleosis*

	"Cured"	Not "Cured"	Total
Number receiving placebo	4	9	13
Number receiving aureomycin	9	12	21
Total	13	21	34

TABLE 2.—*Results of Aureomycin Versus Placebo Therapy in "Probable" Infectious Mononucleosis*

	"Cured"	Not "Cured"	Total
Number receiving placebo	4	10	14
Number receiving aureomycin	8	8	16
Total	12	18	30

After completion of the study, the cases were divided into two groups on the basis of the laboratory data. The first group, consisting of 26 patients, 7 male and 19 female, ranging in age from 7 to 49 years, were termed those having a "confirmed" diagnosis; that is, every patient had characteristic clinical observations, a heterophil agglutination titer of 1:56 (macroscopic) or more without adsorption on lyophilized guinea pig kidney, or a titer of 1:7 or more after adsorption on lyophilized guinea pig kidney, and 5 per cent or more of the total white cells were atypical lymphocytes. The majority of the blood specimens showed heretophil titers of 1:112 or 1:256, which were not reduced by adsorption on guinea pig kidney.

The second group, consisting of 21 patients, 9 male and 12 female, ranging in age from 6 to 59 years, differed from the first group only in that the heterophil titer was less than 1:56 without adsorption on guinea pig kidney or that the heterophil antibodies were completely removed by such adsorption. It was our impression that the patients in the second group had infectious mononucleosis, and we do not subscribe to the belief of Davidsohn that there must be a positive heterophil titer after adsorption on guinea pig kidney before the diagnosis can be made. However, since this is a controversial point, and since it is possible that there may have been patients with other unrecognized diseases in the second group, we have analyzed the two groups separately.

The physical observations in the first group were fairly uniform. Six patients had enlarged, tender spleens. The initial temperatures ranged from 99 to 104.2 F., usually under 100 F. The higher temperatures were seen in the younger age groups. The initial white blood cell counts were mostly in the normal range. The highest white count observed was 15,300 cells and the lowest 3,400. Only 4 of the 26 patients had had symptoms of the disease for more than seven days, and most of them were given treatment within three days after the onset.

All patients in the first group had atypical lymphocytes in their blood smears, ranging from 5 to 43 per cent of the total leukocyte count. Nine patients had eosinophil counts of 5 per cent or more. It was our impression that a high eosinophil count was seen more frequently in those patients in whom the disease had a protracted course or in whom chronic infectious mononucleosis developed.

All the patients had positive heterophil agglutination tests. Cold hemagglutinins were demonstrated in 17 of 26 patients in the first group, and, of these, 9 had titers of 1:32 or higher, which is considered by many to be diagnostic for primary atypical pneumonia. However, none of these patients had any physical signs or symptoms referable to this disease; since positive cold hemagglutinin titers were demonstrated in these patients on several occasions during the course of their infectious mononucleosis, there exists some doubt of the specificity of that test.

Our criteria of "cure" for all patients were disappearance of fever, subsidence of nasopharyngeal inflammation and lymphoid swelling, disappearance of swollen lymph nodes and cessation of all symptoms referable to the disease, such as pain, headache and fatigue, within one week after the start of therapy without subsequent recurrence of symptoms. Table 1 shows the results in the group of patients with "confirmed" diagnoses.

It should be remarked that some patients received both the placebo and aureomycin; hence, they are included in the table twice, giving a total of 34 trials in 26 patients. From this table a value for χ^2 (chi square) may be calculated, and it is found to be 0.49. For this value of χ^2, P (probability) is about 0.48, which indicates that the observed results could have occurred by chance alone in half the trials.

The second group of 21 patients, those with equivocal or no heterophil agglutinins, appeared in all other respects to be identical with the first group. Six patients were seen after they had had symptoms for more than seven days. Three patients had some evidence of hepatitis: enlarged tender livers, and in 2 instances acholic stools. The results in the second group are shown in table 2.

Since both the placebo and the drug were given to some patients, there were 30 trials in 21 patients. In this series, χ^2 is found to be 1.43 with a P value of about 0.28, indicating that the results could have occurred by chance at least 28 per cent of the time. Only 1 patient had a cold agglutinin titer of 1:32 or over.

These results emphasize strongly the necessity for adequate controls in the evaluation of any therapeutic agent. To illustrate how one may be misled, one of the first patients who was treated happened to receive

the placebo. The patient made a dramatic recovery within twenty-four hours, the fever subsiding, glandular swelling and all symptoms disappearing. Since the examining physician was unaware of the identity of the medicament, he concluded that the patient had received aureomycin; when infectious mononucleosis developed in his daughter shortly thereafter, he administered capsules "A" (the placebo) to her, unfortunately without such dramatic results.

TOXIC EFFECTS

A total of 39 patients received aureomycin. Of these, 27 (69 per cent) had disagreeable side effects (table 3). Nausea and vomiting were the most distressing symptoms, and in some instances the vomiting was projectile in character. In a few patients aluminum hydroxide gel was tried but did not abolish the nausea. A chance observation by 1 patient that cottage cheese suppressed the nausea led to its trial in other cases. Although this was not always effective, it proved to be superior to aluminum hydroxide gel and was more acceptable to the majority of patients. In a number of instances diarrhea did not develop until several days after cessation of aureomycin therapy. Some patients did not have true diarrhea but noted an increased frequency of defecation with rather loose bulky stools. Rectal burning and itching was noted by 9 patients. No patients receiving the placebo reported any toxic symptoms, although they were warned at the initial visit that they might expect them. These observations appeared to confirm our impression that the nausea and other symptoms were not psychic in origin.

TABLE 3.—*Toxic Effects of Aureomycin*

Number of cases	39
Nausea	14
Vomiting	8
Diarrhea	11
Burning of rectum	9
No symptoms	12

MISCELLANEOUS OBSERVATIONS

Although infectious mononucleosis is described as a disease of youth, it should be noted that 19 of our 47 patients were 35 years of age or older. In general, the younger patients had a more acute onset and recovered more quickly. Of the 8 patients with chronic recurring infection in the series, 6 were in the older age group.

It was noted that positive heterophil titers and atypical lymphocytes in the smear were demonstrable after the clinical symptoms had subsided; many patients had positive heterophil tests two months or longer after they were clinically "cured." In general, however, the heterophil titer and number of atypical lymphocytes declined steadily, though slowly, after symptomatic improvement occurred.

In many of the stained blood smears lymphocytes of an unusual type, which differed from the generally recognized atypical cells associated with infectious mononucleosis, were observed. It is believed these were small, mature lymphocytes consisting of nuclear fenestrations, which appear at first glance to be a nucleus containing multiple nucleoli or even to be atypical basophils but which on careful study are found to be multiple holes piercing the nucleus in various directions. Such cells have been described by Osgood,[6] and, although he found them in relatively small numbers, were believed by him to be definitely diagnostic of infectious mononucleosis.

The duration of the disease was variable: In some cases it was only five to seven days; in others it was as long as eighteen months, and a few of the patients considered "cured" in the spring have experienced recurrences after an asymptomatic period of six to nine months. This variability in the duration of the disease makes it imperative that any study involving the evaluation of a possible therapeutic agent be adequately controlled by the use of a placebo and prolonged observation. In the present study it was observed that the range of duration of the disease was as long in the group receiving aureomycin as it was in the group receiving the placebo.

COMMENT

It is obvious from the data presented that aureomycin is of no value in the treatment of infectious mononucleosis. This is contrary to reports of uncontrolled studies which have appeared.[7] The fact that at least 3 of the patients presented some signs of hepatitis, resembling so-called infectious hepatitis, suggests the possibility, as advanced by Berk and his associates,[8] that the etiologic agents of infectious mononucleosis and infectious hepatitis may be the same or closely related. The demonstration of positive cold hemagglutinin titers in patients with infectious mononucleosis also suggests a similarity in the etiologic basis of this disease and primary atypical pneumonia. Against this hypothesis is the observation that aureomycin appears to be an effective chemotherapeutic agent for primary atypical pneumonia but not for infectious mononucleosis. However, further study of these three diseases from the clinical and serologic point of view would seem indicated.

SUMMARY

A controlled study of 47 cases of infectious mononucleosis is presented in which the efficacy of aureomycin as compared to a placebo was examined by a "blind test" technic. In a group of 26 patients in whom the clinical picture, blood smear and results of heterophil agglutination tests were considered diagnostic, the frequency of favorable response to aureomycin and to the placebo was that which would be expected by chance. In a second group of 21 patients in whom the clinical picture and blood smear were considered diagnostic for infectious mononucleosis but in whom the heterophil agglutination test was equivocal or negative, similar results were obtained. In the first group, 17 of 26 patients had cold agglutinin titers of 1:32 or higher without physical observations or symptoms suggesting the presence of atypical primary pneumonia, thus casting some doubt on the specificity of the test.

Toxic effects, principally nausea, vomiting, diarrhea and burning of the rectum were observed in 69 per cent of the patients receiving aureomycin. It should be mentioned, however, that an extensive clinical experience with aureomycin from the same source in recent months demonstrates much less toxic effect from the more highly purified product. No patients receiving the placebo had side effects.

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7. Spink, W. W., and Yow, E. M.: Aureomycin: Present Status in the Treatment of Human Infections, J. A. M. A. **141**: 964 (Dec. 3) 1949.
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Contrary to general impression, infectious mononucleosis may occur at any age, and 19 of the 47 patients were 35 years of age or older. The oldest patient was 59, and eight were under 12 years of age.

The duration and severity of infectious mononucleosis are extremely variable, and in order to evaluate the effectiveness of a proposed therapeutic agent in this disease it is imperative that an adequate control series be studied simultaneously.

CHOLINE CHLORIDE IN THE TREATMENT OF ONE HUNDRED PATIENTS WITH DIABETES MELLITUS

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During the twenty-six years since the discovery of insulin there have been reports of various substances which were supposed either to take the place of insulin or to ameliorate the severity of diabetes mellitus. Perhaps the most recent of these substances to be used in man has been choline chloride.

Experimentally Best [1] and Dragstedt [2] have shown that choline as well as insulin is a factor in the prolongation of the lives of depancreatized dogs. However, I have been unable to find any reports except that of Pelner and others [3] to show that choline benefits human beings with diabetes. Collens and Boas [4] expressed their belief that choline prevents fatty infiltration of the liver in man, but Joslin and co-workers [5] as well as Best and Rideout [6] were of the opinion that the fatty condition of the liver of diabetic patients is much more likely to be due to inadequate insulin therapy than to a deficient supply of lipotropic factors. Biskind and Shreier [7] reported improvement in the diabetic state of many patients after the administration of large doses of vitamin B complex. Pelner and associates,[3] however, considered this type of response to be due to choline present in the vitamin B complex.

In 1948 Pelner and others [3] reported that choline chloride (4 Gm. per day) was beneficial in 18 of 26 patients with diabetes mellitus. A fall in the blood sugar level, a gain in weight and an improvement in well-being was noted in these patients. In some a reduction and final elimination of the insulin dose was achieved. Initial improvement appeared usually within two weeks. Because of the widespread use of choline that might arise from this encouraging report,[3] it was deemed wise to study the effect of the drug on a larger group of diabetic persons.

METHODS OF STUDY

In this study 100 patients ranging in age from 16 to 87 and with a history of known diabetes varying from one year or less to twenty-eight years were given 1 Gm. of choline chloride four times daily (the dose used by the Pelner group [3]). All these patients were under my personal care. Their diets, of course, varied according to age and caloric requirements but for the most part consisted of a mixture that could be classed as average carbohydrate, average protein and low fat. No changes in diet were advised during the administration of choline except in a few cases detailed in the following results. About 75 per cent of the patients in this group had severe or moderate diabetes requiring insulin, and the remainder had mild diabetes and did not require insulin. The average length of time that all the patients were given choline was forty-two days.

Each patient was weighed and a fasting or postprandial blood sugar level was determined before choline was administered. Additional blood sugar levels were determined at weekly intervals for the duration of the experiment. The patients were also weighed weekly and questioned about any symptomatic changes that might have occurred during the previous week. As was to be expected, because of the frequent interviews better adherence to the prescribed diets was noted.

RESULTS

In no instance did choline therapy appear to benefit persons with diabetes. Fifty-four per cent of the group studied were women and 46 per cent were men.

Analysis of Data on Blood Sugar Determinations

	Number of Patients	Mean Initial Blood Sugar, Mg./100 Cc.	Mean Final Blood Sugar, Mg./100 Cc.	Difference Between the Means	Standard Error of Difference Between the Means *
Fasting group	53	151	145	−6	7.5
Postprandial group	47	182	172	−10	13.3
Entire group	100	166	158	−8	7.73
Middle-aged group with diabetes of short duration †	23	151	146	−5	11.1

* The observed difference between the mean initial and the mean final value is significant if it is twice the standard error of the difference between the means.

† Middle-aged denotes patients aged 40 to 60 years; short duration is considered four years or less.

The same lack of response to the drug was noted in both sexes. Furthermore, no gain or loss in body weight was observed in any of these patients. Although 8 patients claimed that they felt generally better while taking choline than they had for a long time, objective improvement was not detected in these patients. Because of this feeling of well-being, it was difficult to persuade 3 of the patients to discontinue taking choline at the conclusion of the study. It was thought that a large emotional factor entered into their desire to continue choline therapy.

Choline did not cause a significant change in the blood sugar level of any of the groups of diabetic patients (see the accompanying table). According to accepted methods of statistical analysis,[8] the small differences noted between the mean initial blood sugar determinations and the mean final blood sugar levels occurred only by chance and were not due to the effect of choline. During the experiment small adjustments of insulin dosage were made in a few patients. In 11 persons a mean reduction of 5 units of insulin per day was made. In 18 patients there was a mean

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3. Pelner, L.; Davidson, B.; Waldman, S., and Margolis, R.: N. Y. State M. J. **48**: 523, 1948.
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increase of 6 units of insulin per day. These changes in dosage were considered insignificant, in that they were of the same order of magnitude as adjustments made prior to the experiment in the same group.

Twenty-five patients with mild diabetes were fairly well controlled by diet only and did not receive insulin before being given choline. The carbohydrate in the diet of these patients was increased after they had been taking choline for a period of two weeks, but concomitant with the increase in the diet there was an increase in the blood sugar level.

Seven patients with diabetes of recent origin (five months or less) were placed on a diet and given enough insulin to reduce their blood sugar determinations to normal. They also failed to respond to choline as gaged by their dietary and insulin requirements. The same lack of response to the drug was noted in 5 patients with diabetes of long standing. Two of these patients had had diabetes for over twenty-five years, 1 for twenty-three years and 2 for twenty years.

Three patients with severe diabetes in whom the blood sugar levels were always in the neighborhood of 300 mg. per hundred cubic centimeters were given choline. Each of these patients had been on a diet of free choice and had taken enough insulin so that acidosis had never developed. They were given choline but otherwise were advised to remain on the same dietary and insulin programs. No decrease in their blood sugar levels occurred at any time during the forty-two day period in which they took choline.

The condition of 1 diabetic person had never been under satisfactory control. Numerous combinations of insulin and diet failed to keep him sugar free without repeated severe insulin reactions. He was maintained best on a high protein, high carbohydrate and low fat diet with only moderate amounts of insulin, always making certain that his urine contained considerable sugar. He was given choline for forty-two days without resultant change in the severity or stability of his diabetes.

Pelner and others [3] noted that some of the patients who responded to choline had cholesterol deposits around their eyes. Because of this, it was suggested that those patients with a high blood cholesterol level might respond best to the administration of choline. Six patients in this study had a high blood cholesterol level (at least 350 mg. per hundred cubic centimeters), but neither the insulin requirement nor the blood cholesterol level decreased in any of these patients after choline was given. Four other patients with cholesterol deposits about their eyes but with a normal blood cholesterol level failed to show a reduction in blood sugar or a decrease in insulin requirements.

Twenty-three patients in this study were 40 to 60 years of age and were classed as middle aged. Of this group, ten had diabetes for four years, 2 for three years, 5 for two years, 5 for one year and 1 for two months. Choline did not alter the severity of the diabetes in patients in this group (see the table). This observation is not in agreement with Pelner and associates,[3] who noted that improvement was usually obtained in middle-aged persons who had been known to have diabetes for only a few years.

Toxicity to choline was noted in 9 of the 100 patients. In 1 patient a preexisting acne became severely aggravated. In 3 other patients there developed diarrhea, which ceased when administration of the drug was discontinued. It was necessary to discontinue the choline therapy in 5 patients because of the development of severe edema of the lower extremities. Rapid disappearance of the edema occurred after the choline dosage was stopped. The cause of this edema was not investigated, but there was no clinical evidence of cardiorenal disease in any of the 5 patients. The occurrence of toxic reactions in this group of patients is not surprising, in that the dosage of choline chloride used was far in excess of the daily human requirement.

SUMMARY AND CONCLUSIONS

1. One hundred patients with diabetes mellitus were given choline chloride (1 Gm. four times daily) for an average of forty-two days without benefit.

2. Choline chloride (4 Gm. daily) is not without toxicity, for toxic effects developed in 9 patients (9 per cent). This indicated that the compound is probably more toxic than experimentalists or clinicians in the past have realized. Five of the 9 patients who had toxic effects manifested severe edema of the lower extremities which disappeared when the drug was discontinued. In as much as choline is frequently used in the treatment of cirrhosis of the liver, which in itself is often characterized by edema, it is possible that edema resulting from the use of choline may be overlooked in many cirrhotic patients.

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Clinical Notes, Suggestions and New Instruments

SENSITIVITY REACTIONS TO AUREOMYCIN

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Since the isolation of aureomycin from Streptomyces aureofaciens was described by Duggar [1] numerous reports of its experimental and clinical trial have appeared in the literature. Aureomycin has been shown to be effective against a great number of gram-negative and gram-positive organisms, but its greatest promise is being shown against rickettsial and virus infections. Finland, Collins and Paine [2] summarized the treatment of 100 cases of bacterial infections with aureomycin. The treatment period ranged between one and thirty-one days, and from 1 to 39 Gm. total dosage of aureomycin was given during that time. Toxic effects were minimal and infrequent. The commonest complaint when large oral doses were given was frequent, loose stools, but true diarrhea was uncommon. Nausea and vomiting occasionally occurred. Finland and his associates did not observe any cutaneous eruptions ascribable to aureomycin.

Lennette and his associates [3] treated 23 patients having Q fever with aureomycin. They made the following statement: "One patient complained of pruritus and soreness of the scrotum and of soreness of the mouth. Both organs appeared inflamed. A second patient had similar complaints referable to the scrotum and also developed a small number of pruritic papular lesions over the shoulders. In both instances, the drug was continued and symptoms did not become increasingly troublesome." Meikle-

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2. Finland, M.; Collins, H. S., and Paine, T. F.: Aureomycin: A New Antibiotic, Results of Laboratory Studies and of Clinical Use in One Hundred Cases of Bacterial Infections, J. A. M. A. 138: 946 (Nov. 27) 1948.

3. Lennette, E. H.; Meiklejohn, G., and Thelen, H. M.: Treatment of Q Fever in Man with Aureomycin, Ann. New York Acad. Sc. 51: 331, 1948.

John and Shragg [4] used aureomycin in the treatment of 22 patients with primary atypical pneumonia. They stated: "In 1 patient cheilitis and a smoothness of the tongue were noted four days after aureomycin therapy was begun." Aside from the latter statement, we could find no report of drug eruptions due to aureomycin in the literature. We believe that the 3 case reports which follow represent instances of eruptions due to the oral administration of aureomycin.

REPORT OF CASES

Case 1.—H. P., a white housewife, aged 43, has had dermatitis herpetiformis (Duhring) for a period of four years. She was hospitalized on the dermatologic service of Mount Sinai Hospital on two occasions. Her first admission was on Jan. 4, 1949. She presented at that time grouped papulovesicular lesions on the face, trunk and extremities. There was a tendency to confluence into large patches in some areas as well as some oozing and crusting. The patient complained of severe pruritus and burning sensations. The hemogram was normal except for eosinophilia (10 per cent). Serologic reactions to the Wassermann and Kahn tests were negative. The urine was normal. An iodide patch test gave negative results. The patient was started on 0.5 Gm. sulfapyridine twice daily. After about three weeks, the pruritus and the cutaneous eruption subsided and she was discharged from the hospital. After hospitalization there was a recurrence of the dermatitis in spite of a maintenance dose of sulfapyridine. Sodium cacodylate, a sulfonamide mixture and nicotinic acid were successively tried without benefit.

On March 29, 1949 the patient was readmitted to Mount Sinai Hospital. At this time, the blood showed eosinophilia (28 per cent) and the cutaneous eruption was as severe and extensive as it had been on her first admission to the hospital. Because of the recent reports of the effectiveness of aureomycin against virus infections and a wide range of micro-organisms, it was decided to give her aureomycin orally.

On April 7, 1949 the administration of 250 mg. of aureomycin four times a day was started. In one week decided improvement of the eruption was noted and the eosinophil count had dropped to 16 per cent. By April 27, 1949 almost complete clearing of lesions had resulted and the eosinophil count of the blood was reduced to 7 per cent. However, for the first time an acute generalized urticaria developed. The administration of aureomycin was stopped, and in three days' time the urticaria subsided.

A patch test with aureomycin powder was negative after forty-eight hours. A scratch test with aureomycin powder and saline solution was negative for immediate reactions. An intradermal test of 0.1 cc. of the intravenous aureomycin solution (Lederle) was also negative after forty-eight hours. Routine intradermal tests using standard allergens of pollens and foods gave no reactions.

An attempt was then made to desensitize the patient to aureomycin by oral administration of the drug in a manner comparable to that found effective in cases of penicillin sensitivity.[5] On May 5, 1949 aureomycin (2.5 mg.) was given by mouth. On May 6 a dose of 2.5 mg. was given twice. The dose was then increased to 7.5 mg. daily. No reaction was noted until May 10, at which time a few wheals were noted on her arm. The dose of 7.5 mg. daily was maintained in spite of moderate urticaria until May 14, when it had to be stopped because of severe diarrhea. On May 23, 1949 a 2.5 mg. dose of aureomycin was given orally and again elicited urticarial lesions.

Case 2.—M. P., a white woman aged 62, had had dermatitis herpetiformis for the past year and a half. She had been under our observation for approximately one year. When first seen, she presented generalized bullae and vesicles on an erythematous base. There were numerous excoriations and denuded areas at sites of former bullae. The eruption was associated with decided pruritus and burning sensations. By alternating courses of sulfonamide drugs and carbarsone, the condition of the patient was kept under fairly good control and pruritus was reduced to a minimum. She apparently became resistant to the drugs which had been efficacious previously, and there was an exacerbation of her eruption. Aureomycin, 250 mg. orally four times a day, was then started on March 25, 1949. In about ten days pronounced clinical improvement was noted. Aureomycin therapy was continued until May 3, 1949, at which time erythema-multiforme-like lesions were noted around the sites of old healed areas. The new eruption consisted of annular, ¾ inch (2.2 cm.) lesions with firm, erythematous raised borders and clear depressed centers. Lesions of this type had not previously been observed. Aureomycin was discontinued, and the erythema-multiforme-like eruption disappeared.

A patch test with aureomycin powder was negative after forty-eight hours. A scratch test with aureomycin powder and saline solution was negative for immediate reactions. An intradermal test of 0.1 cc. of the intravenous aureomycin solution was also negative after forty-eight hours.

Two weeks later, readministration of aureomycin in doses of 2.5 mg. three times a day produced urticarial lesions after several days. The erythema-multiforme-like eruption did not recur.

Case 3.—W. K., a man aged 59, was operated on at Mount Sinai Hospital Jan. 6, 1949. After the operation the suprapubic wound continued to drain urine, and it was believed that a benign prostatic hypertrophy was obstructing the bladder neck and delaying healing. He was discharged about a month later and progressed fairly well until chills and fever developed. This was interpreted as pyelonephritis, and the patient was given chemotherapy. He reentered the hospital for a suprapubic prostatectomy, which was performed March 23, 1949. On March 19, four days before the operation, aureomycin 250 mg. daily was ordered. This dose was increased on March 23 to 250 mg. three times a day. On March 27 a skin eruption in the groin and on the scrotum was observed and was of the type usually associated with penicillin sensitivity. There was a sharply circumscribed area of redness, edema and vesicles involving the groin and extending over to the scrotum. Aureomycin therapy was discontinued, and under wet dressings the eruption gradually subsided.

A patch test with aureomycin powder was negative after forty-eight hours. A scratch test with aureomycin powder and saline solution was negative for immediate reactions. An intradermal test of 0.1 cc. of the intravenous aureomycin solution was also negative after forty-eight hours.

Treatment with dihydrostreptomycin, 0.5 Gm. every twelve hours, was started on March 31. The eruption continued to improve in spite of the continuation of the streptomycin dosage. He also received penicillin dust inhalations on March 31 for postnasal drip. A herpetic eruption developed on the right half of the soft palate, but there was no flare-up of the lesions in the groin.

There was evidently only circumstantial evidence for a diagnosis of aureomycin sensitivity. In July 1949 the patient was discharged from the hospital. Some time later, he took four capsules of aureomycin, each containing 250 mg., and shortly thereafter had a recurrence of the eruption on the scrotum and the groin. Simultaneously, a sore throat and a rise in temperature occurred. The eruption lasted for two weeks. Reelicitation of the eruption after the ingestion of the aureomycin constitutes a definite proof for his aureomycin sensitivity.

SUMMARY

Three patients with allergic skin eruptions due to aureomycin are reported. One eruption was urticarial in type. The second presented an erythema-multiforme-like eruption and urticaria; the third was an eczematoid eruption in the groin and on the scrotum of the type usually seen after administration of penicillin. Scratch and intradermal tests as well as patch tests with aureomycin failed to elicit a positive reaction. Reelicitation of

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5. Peck, S. M.; Siegal, S.; Glick, A. W.; Kurtin, A., and Bergamini, R.: Clinical Problems in Penicillin Sensitivity, J. A. M. A. **138**: 631 (Oct. 30) 1948.

the eruption in each instance on administration of aureomycin was evidence that the patients were sensitive to the aureomycin. Apparently the skin eruptions which occur after administration of aureomycin follow the pattern of most drug eruptions, in that they are nearly always associated with negative skin tests to the responsible drug.

ACUTE PANCREATITIS IN PREGNANCY

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Acute pancreatitis is thought to be a condition due to the effect of activated ferments on the tissue of the pancreas. There are two different types af acute pancreatitis, one accompanied with necrosis and hemorrhage and the other designated as acute interstitial (nonhemorrhagic) pancreatitis. The pathologic changes are quite different.

In acute interstitial pancreatitis the pancreas appears enlarged, firm, edematous and whiter than normal. Microscopically there is edema of interstitial tissue of the pancreas and peripancreatic tissues. There may be some infiltration by neutrophilic leukocytes, and occasionally small areas of fat necrosis are present. In acute hemorrhagic pancreatitis the pancreas is enlarged and firm, with softer friable areas of necrosis. Various degrees of hemorrhagic and gangrenous changes may involve portions of the pancreas or the whole organ. Areas of fat necrosis affect the fat of the pancreas, mesentery and omentum. The necrotic areas of fatty tissue are surrounded by a zone of hyperemia and leukocytes. The tissue is edematous and infiltrated with erythrocytes but relatively few leukocytes. Blood vessels may show necrosis of their walls and thrombi in their lumen.

A review of the standard textbooks and of the current literature fails to reveal a discussion of acute pancreatitis as a complication of pregnancy. This dearth of information regarding the condition is puzzling when one considers the theories of the causation of the disease. The commonly accepted etiologic mechanism[1] is blocking of the pancreatic duct by hyperplasia, stone in a common biliary duct or pressure from without, as might be expected by a tumor or enlarged nodes. If this etiologic theory is valid, the incidence of acute pancreatitis should be much increased during pregnancy because the gravid uterus could, by direct or indirect pressure, produce the blocking mechanism.

The diagnosis of acute nonhemorrhagic pancreatitis is made on the basis of some type of abdominal discomfort, nausea and vomiting accompanied with high levels of diastase in blood and urine. The diagnosis is being made with greater frequency because of the availability of a simple, accurate and rapid method developed by Somogyi[2] for the determination of blood diastase. Elman[3] reported a series of 65 cases of acute pancreatitis in five years at the St. Louis City Hospital. The incidence will probably continue to increase as this simple method of diastase determination is more generally accepted.

REPORT OF CASE

History.—Mrs. V. H., a white primigravida aged 17, was admitted to the Jewish Hospital Aug. 31, 1948 because of acute abdominal pain. The expected date of confinement was October 12. The past history was entirely irrelevant. Gestation was unrelated to the onset of the present illness. Three days prior to admission to the hospital the patient noted pain in the left epigastrium, left lower anterior portion of the chest and left upper quadrant of the abdomen, with radiation around to the left scapula. The pain was gradual in onset and was aggravated by deep inspiration. She vomited once on the day of onset of illness and noted temperature of 101 F. Since then she had had anorexia and occasional loose stools. On entry to the hospital the temperature was 100.4 F., the pulse rate 104 and the respiratory rate 22. The blood pressure was 120 systolic and 60 diastolic.

Physical Observations.—The uterus was consistent in size with the stated gestation. The abdomen was somewhat tense throughout but not definitely tender. Slight diminution of sounds in the left side of the chest was noted. Respirations were shallow, with complaint of pain on the left side during deep inspiration. The physical condition was otherwise essentially normal.

Laboratory Data.—On the day after admission the white blood cell count was 6,400 with a normal differential, hemoglobin 11.7 Gm. (Haden-Hausser) and a corrected sedimentation rate of 44 mm. per hour (Weintrobe). The urine had a faint trace of albumin, 3 plus acetone, 4 plus diactic acid, 3 plus urobilinogen and an occasional white blood cell. Fasting blood sugar was 79 mg. and nonprotein nitrogen 15 mg., per hundred cubic centimeters. Blood diastase measured 448 units (normal 80 to 150); urine diastase was 4,033 units (normal 160 to 300). The icterus index was 4; reaction of the blood to the Kahn test was negative. Roentgen examination of the chest revealed essentially normal conditions.

Because of the blood diastase level of 448 units and the urinary diastase level of 4,033 units (about ten times the value for blood diastase), a diagnosis of acute interstitial pancreatitis was made.

Treatment.—The treatment in acute pancreatitis is supportive. Opiates are used for the relief of pain in severe cases. In mild cases the use of antispasmodic agents such as atropine, glyceryl trinitrate and diphenylacetyl diethylaminoethanol hydrochloride (trasentine hydrochloride®) have been used successfully. Patients with vomiting are treated freely with fluids, electrolytes and dextrose. If the patient is able to take food by mouth, a low fat, bland diet is used. In this case the patient was treated with opiates, intravenous administration of a 10 per cent dextrose solution for the first twenty-four hours and then with a low fat, bland diet. The discomfort receded quickly, and the blood diastase level returned to 76 units, a normal figure.

Posthospital Course.—The patient was discharged from the hospital and was followed in the clinic. She remained completely asymptomatic at weekly observations for the next six weeks. On October 15 she entered the hospital in active labor and after eleven and one-half hours of normal labor delivered a normal male infant spontaneously over a right medial lateral episiotomy. The postpartum course was uneventful. On the second day postpartum after oral ingestion of a radiopaque contrast medium a series of roentgenograms of the gallbladder was reported as revealing a "functioning gallbladder with no evidence of calculus." The patient has been followed for six months as an outpatient and has remained completely asymptomatic, except for one episode of abdominal pain with a normal diastase level.

COMMENT

The diagnosis of acute pancreatitis cannot be made by clinical means alone. Were it not for the almost routine examination of blood diastase as practiced at this hospital the diagnosis of acute pancreatitis would not have been made in this case.

The method for determination of diastase as advised by Somogyi is based on the amyloclastic property of diastase. The test can be performed within fifteen minutes, uses only 0.5 cc. of serum or plasma and requires no extensive skill or apparatus. By the use of a constant predetermined factor for each time unit of incubation, the quantity of starch-splitting enzyme can be calculated instantly.

If this test for blood diastase and urine diastase were applied more routinely, and if the theory regarding the etiologic basis of acute pancreatitis, namely, pressure within or on the pancreatic duct, is valid this diagnosis should be made more frequently during pregnancy. This applies especially to the patients in whom a diagnosis of cholecystitis with or without cholelithiasis has been made clinically and in whom pancreatitis has not been suspected.

From the Departments of Obstetrics and Gynecology and of Medicine and from the Laboratory of the Jewish Hospital.

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2. Somogyi, M. J.: Micromethods for the Estimation of Diastase, J. Biol. Chem. 125:399, 1938.

3. Elman, R.: Surgical Aspects of Acute Pancreatitis, with Special Reference to Its Frequency as Revealed by the Serum Amylase Test, J.A.M.A. 118:1265 (April 11) 1942.

SUMMARY

A case of acute pancreatitis in pregnancy is presented with brief discussion of the etiologic mechanism of pancreatitis and its rarely reported incidence in pregnancy. Routine diastase determinations might lead to more frequent diagnosis of this condition during pregnancy.

DIPHENHYDRAMINE (BENADRYL®) FOR NOCTURNAL LEG CRAMPS

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Nocturnal cramps in the legs are a common symptom. The usual history is that of a severe contraction of the muscles of the calves awakening the patient. The cramp sometimes affects the thigh or foot instead of the calf. The symptom ranges from a mild contraction of the muscle to extreme spasm that may give agonizing pain. The cause of nocturnal cramps is not known. The symptom is not primarily circulatory, often occurring in patients without disease of the arteries or veins. A history of low backaches is common in patients with nocturnal cramps.

This condition in the extremities can usually be prevented by administration of quinine or quinidine sulfate (0.2 or 0.3 Gm.) at bedtime.[1] Failure of a patient with severe nocturnal leg cramps to respond to quinidine sulfate therapy led me to give him diphenhydramine hydrochloride (benadryl hydrochloride®), 50 mg. at bedtime, with complete prevention of his cramps since March 14, 1949, when the first capsule was administered. He had previously had no relief from symptoms for a period of seventeen months while taking a variety of drugs in addition to quinidine. The idea of using diphenhydramine for relief of leg cramps was suggested by the use of this drug for parkinsonism with improvement in muscle rigidity.[2] The relief of the first patient led us to give diphenhydramine hydrochloride (50 mg.) at bedtime to 16 additional patients with severe nocturnal cramps in the legs. All 16 reported complete freedom from cramps after diphenhydramine therapy was started.

Although nocturnal leg cramps can usually be prevented by quinine or quinidine sulfate, both of which I have used successfully in more than 100 patients, diphenhydramine has some advantages in certain groups of patients. For example, perhaps 50 per cent of women who are pregnant complain of leg cramps, which are at times severe. Obstetricians may hesitate to prescribe quinine for relief of leg cramps in pregnancy, whereas diphenhydramine is commonly administered antepartum for allergic conditions. Furthermore, in my first patient quinidine did not prevent the cramps whereas diphenhydramine did.

REPORT OF CASES

Case 1.—L. M., a man aged 62, was seen in January 1948 because of severe cramps in the legs and thighs at night, so that he had been unable to sleep for the past three months. He also gave a past history of intermittent claudication since 1943 because of arteriosclerotic occlusion of the left popliteal artery. The claudication had improved so that he was able to walk five blocks, and his chief complaint in 1948 was the intense leg cramps at night. Quinidine sulfate 0.3 Gm. was prescribed to be taken at bedtime. He obtained no relief from the quinidine. He was seen several times a month during 1948 because of continued severe nocturnal leg cramps, for which he required morphine sedation at times. In addition to the quinidine sulfate, the following drugs were given in futile attempts to prevent this cramp: sodium chloride; calcium; thiamine chloride; priscoline® (2-benzyl-4,5-imidazoline hydrochloride) and acetylsalicylic acid and phenobarbital. The cramp would begin about 6 o'clock in the morning just before the patient awoke; on one occasion it was suggested that he set an alarm clock at 5 o'clock and take another dose of quinidine sulfate. This also failed to prevent the cramp. He was then given a capsule of 50 mg. of diphenhydramine hydrochloride at bedtime, and since he took the first dose of this drug March 14, 1949, he has not had a cramp. He has continued taking diphenhydramine each night because of his fear that the cramps may otherwise return.

Case 2.—D. M., a woman aged 58, in June 1949 had severe cramps in the right leg which had persisted for many months, awakening her once or twice a night. Examination disclosed dilated veins of the right leg with incompetence of the long saphenous vein. There was mild dermatitis of the lower half of the right leg. Arterial circulation was normal. Diphenhydramine hydrochloride, 50 mg. at bedtime, was prescribed. She was not seen again until August, when she stated that she had not had cramps while taking diphenhydramine but that after she exhausted her supply of the drug a week previously the severe cramps had returned. Diphenhydramine was prescribed, and again the patient obtained relief from the cramps.

Case 3.—D. B., a woman aged 65, had a history of nocturnal leg cramps for several years. For a month the cramps in the calves and thighs had been extremely severe, and for a week these had occurred every night at 2 to 3 o'clock. The cramps awakened her, and the pain was so severe that she would scream; members of her family would rub the legs with alcohol and apply heat. She also had a history of severe low backaches for almost six years, for which she was in bed at one time for four weeks. The examination disclosed no abnormality of the blood vessels, other than signs of a past phlebitis, which had occurred in the left leg a year previously. There was decided tenderness over the midlumbar vertebra. Diphenhydramine hydrochloride, 50 mg. to be taken each night, was prescribed, and she had no cramps after administration of the first dose. Three weeks later she stopped taking diphenhydramine. A mild cramping sensation returned, but this bothered her so little that she did not consider it necessary to resume diphenhydramine therapy.

COMMENT

A total of 17 patients with severe leg cramps at night were treated with diphenhydramine, with prevention of the cramp in all patients. As Moss and Herrmann [1] pointed out with regard to the use of quinine for leg cramps, it is not always easy to evaluate the effect of a drug in nocturnal cramps because some patients have them at irregular intervals. The difficulty is indicated by the fact that several patients stopped taking diphenhydramine after two or three weeks and the cramps did not return. However, some of the patients treated with the drug had had these cramps consistently every night for weeks or months. The prompt relief after they took the first capsule suggests that the medicament was responsible. Also, when some patients discontinued diphenhydramine therapy after obtaining relief, the cramp returned and was again prevented by use of the drug. The number of observations made and the prompt cessation of cramps in all patients after the start of diphenhydramine therapy indicate that this drug is effective against nocturnal cramps. A desirable action of the compound is the drowsiness that develops in so many patients who take it. Since these cramps occur at night, the drug has the advantage of helping the patient to sleep. However, drugs that produce sedation only, without having the other properties of diphenhydramine hydrochloride, do not prevent nocturnal cramps. The mechanism by which the drug relieves this condition is not known.

SUMMARY

Diphenhydramine hydrochloride (benadryl hydrochloride®) was used in 17 patients with nocturnal cramps in the legs, with prevention of the cramp in all cases. In the first patient treated, quinidine sulfate had given no relief but diphenhydramine hydrochloride was wholly successful. In some patients the cramps failed to return after the drug was discontinued. In others, renewed diphenhydramine therapy relieved the cramps after discontinuance of the drug had resulted in return of the symptom. Conditions in which diphenhydramine therapy would be preferable to the use of quinine or quinidine for relief of leg cramps are discussed.

From the Peripheral Vascular Section of the Edward B. Robinette Foundation, Medical Clinic, Hospital of the University of Pennsylvania.

1. Moss, H. K., and Herrmann, L. G.: Use of Quinine for the Relief of "Night Cramps" in the Extremities, J.A.M.A. 113:1358-1359 (Oct. 19) 1940.
2. Budnitz, J.: The Use of Benadryl in Parkinson's Disease, New England J. Med. 239:874-875 (June 17) 1948. Ryan, G. M. S., and Wood, J. S.: Benadryl in the Treatment of Parkinsonism, Lancet 1:258-259 (Feb. 12) 1949.

FIXED DRUG ERUPTION FROM TETRAETHYLTHIURAM DISULFIDE (ANTABUSE)

HENRY M. LEWIS, M.D.
and
HAROLD H. BREMERS, M.D.
Denver

In 1948 Hald, Jacobsen and Larsen[1] demonstrated that persons who had ingested tetraethylthiuram disulfide (antabuse) suffered a disagreeable reaction to the subsequent consumption of alcohol. The treatment of chronic alcoholism with this drug has since been shown to have definite value,[2] and because it may attain widespread employment we believe that the report of a cutaneous reaction to this form of medication is of interest.

The pharmacology of tetraethylthiuram disulfide has been recently reviewed and will not be considered here.[1] When alcohol is ingested twelve hours after the intake of this drug there occurs, after about ten minutes, an intense erythema of the face, neck, upper part of the chest and arms, accompanied with decided injection of the scleras. A pronounced tachypnea, tachycardia and a moderate fall in blood pressure occur in the characteristic reaction. Subjectively, pulsating headache, palpitation, dyspnea, a sensation of constriction of the neck and an intense "hangover" are noted. In a more pronounced reaction, a precipitous fall in blood pressure associated with nausea and vomiting takes place.

REPORT OF CASE

The patient was a white male bartender aged 52 in good health. His past history was noncontributory except for the ingestion of 4/5 quart (757 cc.) of whisky daily for "more than ten years." Complete physical examination revealed essentially normal conditions. Serologic tests for syphilis, renal and hepatic function tests, complete blood count, urinalysis, electrocardiograms and examination of the spinal fluid revealed normal values. There was no history of previous drug eruption.

Tetraethylthiuram disulfide was administered in the following manner: July 15, 1949, 2.0 Gm.; July 16, 1.5 Gm.; July 17, 1.0 Gm., and July 18 to 23, 0.75 Gm. daily. A test dose of 45.0 cc. of 80 proof whisky (18.0 cc. alcohol) was administered orally July 18. About ten minutes later a moderate erythema of the face, neck, chest and arms with vasodilatation of the scleral vessels was observed, and the patient complained of headache, palpitation and shortness of breath followed by a "hangover." Two days later he noted intense pruritus of the thighs and of the gluteal, inguinal, scrotal, lower abdominal, axillary and cervical regions. Examination at this time revealed pronounced erythema with numerous excoriations in the pruritic areas. The redness was particularly intense in a beltlike distribution encircling the abdomen. There was a large patch of central clearing and peripheral erythema in each gluteal area. The eruption cleared gradually, and no lesions were visible on July 28. Topical therapy relieved the pruritus somewhat, but the underlying eruption appeared to be unaffected.

After complete clearing of the eruption, tetraethylthiuram disulfide was readministered as follows: July 29, 1.0 Gm.; July 30, 1.0 Gm., and July 31 to August 6, 0.75 Gm. daily. Forty-five cubic centimeters of 80 proof whisky was ingested on August 4. The characteristic reaction to tetraethylthiuram disulfide plus alcohol ensued. Two days later a recurrence of the aforementioned eruption appeared in identical sites. Medication was discontinued, and the eruption subsided in three days.

The patient was lost from observation until Oct. 7, 1949 but stated that from August 24 to October 7 he had again ingested 4/5 quart of whisky daily but no eruption had appeared. For one week following rehospitalization no medication was given. Tetraethylthiuram disulfide was then administered as follows: October 15, 2.0 Gm.; October 16, 1.5 Gm.; October 17, 1.0 Gm., and October 18, 1.0 Gm. On October 18 and again on October 21, 45 cc. of 80 proof whisky was given. The typical disagreeable reaction followed the administration of whisky on both occasions, but recurrence of the eruption did not take place until October 22. Again, as on two previous occasions, the cutaneous manifestations were identical in site and morphologic detail. The eruption subsided completely, without therapy, in four days.

The recurrence of the cutaneous manifestations, in identical sites, elicited by the administration of tetraethylthiuram disulfide plus alcohol establishes this case as a fixed drug eruption. It is of interest to note that the eruption did not occur following the administration of either alcohol or tetraethylthiuram disulfide alone, and we are therefore of the opinion that a reactive product of the two substances combined is the etiologic factor.

Data on Reactions to Tetraethylthiuram Disulfide plus Alcohol

Date, 1949	TTD* (Gm.)	80 Proof Whisky (Cc.)	TTD* plus Alcohol Reaction	Drug Eruption
7/15	2.00	"	"	"
7/16	1.50	"	"	"
7/17	1.00	"	"	"
7/18	0.75	45.0	mild	"
7/19	0.75	"	"	"
7/20	0.75	"	"	++++
7/21	0.75	"	"	++++
7/22	0.75	"	"	+++
7/23	0.75	"	"	+++
7/24	....	"	"	+++
7/25	....	"	"	++
7/26	....	"	"	+
7/27	....	"	"	+
7/28	....	"	"	"
7/29	1.00	"	"	"
7/30	1.00	"	"	"
7/31	0.75	"	"	"
8/1	0.75	"	"	"
8/2	0.75	"	"	"
8/3	0.75	"	"	"
8/4	0.75	45.0	moderately severe	"
8/5	0.75	"	"	"
8/6	0.75	"	"	+++
8/7	....	"	"	++
8/8	....	"	"	+
8/9	....	"	"	"
8/10 to 8/24	....	"	"	"
8/24 to 10/6	....	727.0	"	"
10/7 to 10/14	....	"	"	"
10/15	2.00	"	"	"
10/16	1.50	"	"	"
10/17	1.00	"	"	"
10/18	1.00	45.0	moderate	"
10/19	....	"	"	"
10/20	....	"	"	"
10/21	....	45.0	moderate	"
10/22	....	"	"	++++
10/23	....	"	"	+++
10/24	....	"	"	++
10/25	....	"	"	+

* TTD indicates tetraethylthiuram disulfide.

Inasmuch as it is believed that the disagreeable effect produced by the combination of the two agents is caused by a decided increase in the blood level of acetaldehyde,[3] we assume that acetaldehyde is responsible for this fixed drug eruption.

We do not believe that the described eruption constitutes a contraindication to the employment of tetrathylthiuram disulfide in otherwise suitable candidates for therapy.

SUMMARY

A fixed drug eruption following the sequence tetraethylthiuram disulfide plus alcohol is reported. It is probable that this eruption is elicited by a product of the combination of the two drugs in vivo.

2200 East Eighteenth Avenue.

From the Department of Dermatology, University of Colorado School of Medicine.

1. Hald, J.; Jacobsen, E., and Larsen, V.: Sensitizing Effect of Tetraethylthiuramdisulfide (Antabuse) to Ethyl Alcohol, Acta pharmacol. et toxicol. 4:285 (Dec.) 1948.

2. Jacobsen, E., and Martinsen-Larsen, O.: Treatment of Alcoholism with Tetraethylthiuram Disulfide (Antabuse), J. A. M. A. 139:918 (April 2) 1949.

3. Hald, J., and Jacobsen, E.: Formation of Acetaldehyde in the Organism after Ingestion of Antabuse and Alcohol, Acta pharmacol. et toxicol. 4:305 (Dec.) 1948.

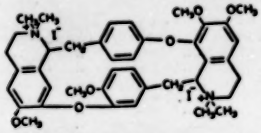
Council on Pharmacy and Chemistry

NEW AND NONOFFICIAL REMEDIES

The following additional articles have been accepted as conforming to the rules of the Council on Pharmacy and Chemistry of the American Medical Association for admission to New and Nonofficial Remedies. A copy of the rules on which the Council bases its action will be sent on application.

R. T. Stormont, M.D., *Secretary.*

DIMETHYL-TUBOCURARINE IODIDE. — Metubine Iodide (Lilly).—Dimethyl ether of *d*-tubocurarine iodide. — $C_{40}H_{46}O_6N_2I_2$. — M.W. 906.56. — The structural formula for dimethyl-tubocurarine iodide may be represented as follows:



Actions and Uses.—Dimethyl-tubocurarine iodide shares the curare action of tubocurarine chloride. The methylated derivative of the alkaloid produces respiratory paralysis less frequently, although it is more potent, having a shorter onset and more prolonged action than tubocurarine. It is excreted more slowly than tubocurarine.

Dimethyl-tubocurarine iodide is useful for the same purposes as tubocurarine chloride, except that its efficacy in the control of therapeutic shock and in the management of spastic conditions has not been completely studied. (See the monograph, Tubocurarine Chloride.)

Like tubocurarine, the methylated derivative is compatible with general anesthetic agents, including the barbiturates employed for this purpose, and is used in conjunction with them to increase skeletal-muscle relaxation for certain surgical procedures.

Dosage.—Dimethyl-tubocurarine iodide is administered intravenously in isotonic sodium chloride solution for muscle relaxation in surgery. The average initial dose is approximately 2 mg. (80 units) and is injected slowly over a period of one to one and one-half minutes, but the size of the initial dose will be influenced by the type of general anesthetic employed; with cyclopropane, from 1 mg. (40 units) to 4 mg. (160 units) may be required; with ether, 2.5 mg. (100 units); with nitrous oxide, 3 mg. (120 units). Satisfactory relaxation cannot be obtained with initial doses below 1 mg. (40 units). The initial dose may be expected to provide relaxation for periods ranging from 25 to 90 minutes, or an average of approximately 60 minutes. Supplemental injections of from 0.5 mg. (20 units) to 1 mg. (40 units) may be made as required and indicated by the depth of surgical relaxation

As with all curare preparations, it is important that the user be experienced in the administration of the drug to avoid the dangerous consequences of overdosage. Respiratory paralysis should be treated promptly by artificial respiration, with an airway, until the paralysis has receded. Neostigmine methylsulfate solution 1:2,000 in 1 cc. to 2 cc. doses should be at hand for intravenous administration to combat respiratory depression, but when this is associated with a fall in blood pressure due to excessive curarization, neostigmine methylsulfate may aggravate the condition of shock.

Like other curare-like drugs, dimethyl-tubocurarine iodide is contraindicated in patients with respiratory embarrassment or pulmonary disease.

Tests and Standards.—

Physical Properties: Dimethyl-tubocurarine iodide is a white to pale yellow, odorless, crystalline powder. It is slightly soluble in water, dilute hydrochloric acid and dilute sodium hydroxide; very slightly soluble in alcohol; and practically insoluble in benzene, chloroform and ether. It decomposes with the evolution of gas when heated to about 257 C. The extinction coefficient, E (1%, 1 cm.), at 2800 A is 74 ± 1.5.

Identity Tests: Prepare a solution of 50 mg. of dimethyl-tubocurarine iodide in 30 ml. of water. To 5 ml. of the solution add several drops of nitric acid and 1 ml. of silver nitrate T.S.: a curdy yellow precipitate forms which is insoluble in ammonia (*presence of iodide*).

To another 5 ml. portion of the solution add 1 ml. of 4 per cent ammonium reinecktate: a pink precipitate forms.

To a third 5 ml. portion of the solution add about 2 ml. of saturated picric acid: a yellow precipitate forms.

To a 6 ml. portion of the solution add 3 ml. of Folin-Ciocalteu phenol reagent (*Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists*, 6th ed., A.O.A.C., Washington, 1945, page 319), previously diluted (1:3) with water, and adjust the volume to 25 ml. with water. Add 2 ml. of 20 per cent sodium carbonate and heat the mixture for 3 minutes in a boiling water bath: the solution is colorless or very faintly blue (*distinction from tubocurarine chloride*).

Purity Tests: Dry about 0.3 Gm. of dimethyl-tubocurarine iodide, accurately weighed, in a vacuum at 75 C. for 8 hours: the loss in weight is not more than 7 per cent.

Assay: Transfer about 0.2 Gm. of dimethyl-tubocurarine iodide, accurately weighed, to a semimicro Kjeldahl flask and digest it with 7 ml. of sulfuric acid, 2.7 Gm. of potassium sulfate and 0.3 Gm. of mercuric oxide for 4 hours. Dilute the clear solution to 15 ml. with water, make it alkaline with 40 per cent sodium hydroxide and then add 10 ml. of 40 per cent sodium thiosulfate. Distil the ammonia into 20 ml. of 4 per cent boric acid. Using a mixed indicator (1:5 methyl red T.S. and bromocresol green T.S.), titrate the ammonia liberated with 0.05 *N* sulfuric acid. Each ml. of 0.05 *N* acid is equivalent to 0.0007004 Gm. of nitrogen. The amount of nitrogen present is not less than 2.80 nor more than 3.10 per cent.

Transfer 0.0250 Gm. of dimethyl-tubocurarine iodide to a 10 ml. volumetric flask and make up to volume with water. Determine the optical rotation in a 100 mm. polarimeter tube: the specific rotation, $[\alpha]$ (25, D) is not less than + 150 nor more than +160.°

Transfer 0.0250 Gm. of dimethyl-tubocurarine iodide to a 500 ml. volumetric flask, add 10 drops of hydrochloric acid and dilute to the mark with water. Mix thoroughly and determine the optical density with a spectrophotometer at 2800 A. The milligrams of dimethyl-tubocurarine iodide per ml. = optical density at 2800 A ÷ 7.4. The amount of dimethyl-tubocurarine iodide present should not be less than 98 nor more than 102 per cent.

The potency of dimethyl-tubocurarine iodide is determined by observation of the "head drop" response following intravenous injection of the drug in rabbits.

Dimethyl-Tubocurarine Iodide Solution:

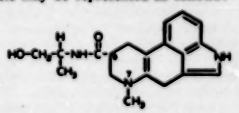
Identity Tests: The solution responds to the identity tests listed in the monograph for Dimethyl-tubocurarine Iodide.

Assay: Transfer exactly 10 ml. of the solution to a 50 ml. beaker and carefully evaporate it to dryness on a steam bath in a current of air. When dry add 5 ml. of water and again cautiously evaporate to dryness. Repeat the evaporation with a second 5 ml. portion of water, then dissolve the dry residue in water and transfer the solution quantitatively to a 100 ml. volumetric flask. Add 1 or 2 drops of hydrochloric acid and fill to the mark. Determine the optical density at 2800 A with a spectrophotometer. The milligrams of dimethyl-tubocurarine iodide per ml. of the prepared solution = optical density at 2800 A ÷ 7.4. The amount of dimethyl-tubocurarine iodide present is not less than 93 nor more than 105 per cent of the labeled amount.

Eli Lilly & Company, Indianapolis 6

Solution Metubine Iodide: 10 cc. ampuls: A solution containing 0.5 mg. of dimethyl-tubocurarine iodide in each cc.

ERGONOVINE MALEATE-U.S.P.—Ergotrate Maleate (Lilly).—"Ergonovine Maleate, dried over sulfuric acid for 4 hours, contains not less than 98 per cent of $C_{19}H_{23}N_3O_2 \cdot C_4H_4O_4$."—*U.S.P.*—The structural formula of ergonovine maleate may be represented as follows:



For description and standards see the U. S. Pharmacopeia under Ergonovine Maleate, Ergonovine Maleate Injection and Ergonovine Maleate Tablets.

Actions and Uses.—Ergonovine maleate is a salt of one of the ergot alkaloids possessing oxytocic activity. It is effective on the uterus in smaller amounts than other potent ergot alkaloids. During the puerperium the uterus is especially sensitive to this alkaloid, and it is therefore useful for the prevention and treatment of postpartum hemorrhage. The use of ergonovine maleate in uterine infection is subject to question and, because of its high oxytocic potency, it is also not recommended for routine use prior to delivery of the placenta.

Ergonovine maleate may be employed for the symptomatic control of migraine.

Dosage.—Ergonovine maleate may be used by oral, sublingual or rectal administration or by intravenous or intramuscular injection. Intravenous injection is preferred for emergency. Intravenous administration of calcium salts may also be necessary when uterine response fails because of deficiency in that cation. Ten per cent calcium gluconate solution, 10 to 30 cc., and 10 per cent calcium levulinate solution, 5 to 25 cc., are administered for this purpose, at a rate not exceeding 1.3 cc. per minute.

Ergonovine maleate is administered orally and sublingually in doses of 0.2 to 0.4 mg. This dose is repeated two to six times daily as required to produce firm uterine contraction until the danger of postpartum hemorrhage is past, usually after the first four days. In patients permitted out of bed before the tenth day postpartum, continuation of therapy is advised

until at least 14 days after delivery. Dosage should be increased after that period if extension of therapy is necessary, because the responsiveness of the myometrium is decreased. The same dosage may be used for rectal administration, the dose being suspended in water and given as a retention enema. For parenteral injection, 0.2 mg. to 0.4 mg. is recommended as a single dose, repeated as necessary until administration by the oral or rectal route becomes feasible.

In migraine, doses of 0.2 to 0.4 mg., usually administered orally, may be given every hour until headache is relieved or a total of 2.0 mg. has been given.

As with other potent ergot alkaloids, prolonged therapy should be avoided and, in hypersensitive persons, care should be taken to prevent the development of ergotism.

ELI LILLY & COMPANY, INDIANAPOLIS 6

Solution Ergotrate Maleate: 1 cc. ampuls: A solution containing 0.2 mg. of ergonovine maleate in each cc.

Tablets Ergotrate Maleate: 0.2 mg.

U. S. patents 2,156,242 and 2,220,801; U. S. trademark 323,111.

ALUMINUM HYDROXIDE GEL-N.N.R. (See New and Nonofficial Remedies 1949, page 333).
The following dosage form has been accepted:

THE VITARINE COMPANY, INC., NEW YORK 19.

Gel Aluminum Hydroxide: 236.5 cc., 473 cc. and 3.78 liter containers: An aqueous suspension containing aluminum hydroxide equivalent to 4 per cent of aluminum oxide. Preserved with soluble saccharin, oil of peppermint and sodium benzoate.

CHOLINE CHLORIDE (See THE JOURNAL, Oct. 8, 1949, page 391).
The following dosage form has been accepted:

TABLEROCK LABORATORIES, GREENVILLE, S. C.

Elixir Choline Chloride: 117.4 cc., 473 cc. and 3.78 liter bottles: An elixir containing 0.2 Gm. of choline chloride in each cc. Preserved with 0.15 Gm. of propylene glycol in each cc. and 0.5 mg. of butyl-paraben in each cc.

DEHYDROCHOLIC ACID (See New and Nonofficial Remedies 1949, page 338).
The following dosage form has been accepted:

VALENTINE COMPANY, INC., RICHMOND 9, VA.

Tablets Dehydrocholic Acid: 0.24 Gm.

ZINC INSULIN CRYSTALS (See New and Nonofficial Remedies 1949, p. 393).
The following dosage form has been accepted:

E. R. SQUIBB & SONS, NEW YORK 22.

Insulin Made From Zinc Insulin Crystals: 10 cc. vials. An aqueous solution containing 40 units in each cc. and 80 units in each cc. Preserved with 0.1 per cent of phenol.

DIHYDROMORPHINONE HYDROCHLORIDE-U.S.P. (See New and Nonofficial Remedies 1949, page 29).
The following dosage forms have been accepted:

BILHUBER-KNOLL CORPORATION, ORANGE, N. J.

Powder Dilaudid Hydrochloride: 1 Gm., 3.54 Gm. and 14.7 Gm. packages.

Solution Dilaudid Hydrochloride: 1.1 cc. ampuls: A solution containing 3.2 mg. of dihydromorphinone hydrochloride in each cc.

U. S. trademark 298,197

ESTROGENIC SUBSTANCES (WATER INSOLUBLE) (See New and Nonofficial Remedies 1949, page 367).
The following dosage form has been accepted:

GOLD LEAF PHARMACAL COMPANY, NEW ROCHELLE, N. Y.

Solution Follumone in Oil: 1 cc. ampuls, 10 cc. and 30 cc. vials: A solution in sesame oil containing 10,000 I.U. or 20,000 I.U. of estrogenic activity in each cc. Preserved with 0.5 per cent of chlorobutanol.

ETHINYL ESTRADIOL (See New and Nonofficial Remedies 1949, page 379).
The following dosage form has been accepted:

SCHERING CORPORATION, BLOOMFIELD, N. J.

Tablets Estinyl: 0.5 mg.

U. S. patent 2,231,939 and 2,263,976; U. S. trademark 398,209.

Council on Physical Medicine and Rehabilitation

REPORT OF THE COUNCIL

The Council on Physical Medicine and Rehabilitation has authorized publication of the following reports.

HOWARD A. CARTER, *Secretary.*

BURTON ULTRAVIOLET BLACK LIGHT, MODELS 1910 AND 1931, ACCEPTED

Manufacturer: Burton Manufacturing Company, 11201 West Pico Boulevard, Los Angeles 34.

The Burton Ultraviolet Black Light generates "Wood's light," an ultraviolet radiation with a low content of visible wavelengths. In this device the source of ultraviolet is a pair of cylindrical tubes containing mercury vapor. The tubes, being of a special Corning glass, filter out most of the visible wavelengths and transmit mainly the ultraviolet.

Burton Ultra-Violet Black Light Models No. 1910 & 1931

The dimensions of Model 1910 are given as 8.5 by 9 by 16.5 cm. (3½ by 3¼ by 6½ inches), and the weight is 0.4 Kg. (1 lb.). The shipping weight is 0.9 Kg. (2 lbs.). The lamp operates on 60-cycle alternating current at 115 volts and draws 0.07 ampere or 8 watts. Model 1931 differs in the type of handle and in having a magnifying lens so mounted as to afford an enlarged view of the object placed under and between the generating tubes, as in examination of the scalp for ringworm.

Evidence was obtained that this device operates as claimed by the manufacturer and is satisfactory for the purposes for which it was designed. The Council on Physical Medicine and Rehabilitation voted to include the Burton Ultraviolet Black Light, Models 1910 and 1931, in its list of accepted devices.

GENERAL ELECTRIC MODEL E INDUCTOTHERM ACCEPTED

Manufacturer: General Electric X-Ray Corporation, 4855 Electric Avenue, Milwaukee 14, Wis.

The General Electric Model E Inductotherm is a short wave diathermy apparatus operating on 13.56 megacycles, the new international frequency approved by the United States and Canadian governments. Application is made either by cable (wound round an extremity or coiled into a pancake) or by "contour-following" applicator. Accessories include the "contour-following" applicator, flexible supporting arm, cable applicator and spacer set. These accessories are included in the shipping weights given below.

G. E. Model E. Inductotherm

The apparatus has casters, so that it can be moved about on the floor. It measures 103 by 62 by 56 cm. (40½ by 24½ by 22 inches) and weighs 96 Kg. (212 lbs.). The domestic shipping weight is 145 Kg. (320 lbs.); the foreign shipping weight 170 Kg. (375 lbs.). The apparatus requires a 60-cycle alternating current at 115 volts, and draws 8 amperes.

Having obtained satisfactory evidence that the apparatus performed as claimed by the manufacturer, the Council on Physical Medicine and Rehabilitation voted to include the General Electric Model E Inductotherm in its list of accepted devices.

Council on Foods and Nutrition

REPORT OF THE COUNCIL

Since 1933 the Council on Foods and Nutrition has accepted fresh milk fortified with vitamin D. Because of the apparent lack of understanding concerning the significance of the seal of acceptance when it appears on vitamin D milk, the publication of the following statement has been authorized.

In addition to fresh milk the Council also accepts, at the present time, whole powdered milk and evaporated milk which are fortified with vitamin D.

JAMES R. WILSON, M.D., *Secretary.*

THE VITAMIN D MILK PROGRAM OF THE COUNCIL ON FOODS AND NUTRITION OF THE AMERICAN MEDICAL ASSOCIATION

To encourage the wider use of milk containing vitamin D as an important public health measure and to stimulate the production of a vitamin D milk which contains 400 U. S. P. units of vitamin D per quart, the Council on Foods and Nutrition accepts pasteurized milk which conforms to the rules and regulations established by the Council. All foods which the Council considers for acceptance are submitted voluntarily. When the Council grants the use of its seal, it is always without charge or obligation.

The acceptance of a vitamin D milk is intended to signify that the milk is fortified with 400 U. S. P. units of vitamin D per quart (the Council recognizes no difference in the efficacy of vitamins D_2 and D_3 when used in this amount), that its bottle closure or paper carton accurately states the kind and amount of vitamin D added and that nutritional claims for it are consistent with established knowledge or the best authoritative opinion. The producer of a Council-accepted vitamin D milk may display the seal of acceptance of the Council on Foods and Nutrition on his bottle closure or paper carton and on advertising which conforms to Council rules. The seal must be displayed so that it applies only to the accepted product and not to other unaccepted dairy products or to the dairy itself. The seal is not a recommendation nor is it a certificate or guarantee of purity. At least two vitamin D bioassays on surprise specimens are required for each accepted product each year. These are performed by reputable independent laboratories. Failure to comply with any requirement of the Council is sufficient cause for the withdrawal of acceptance.

The Council gives its full support to the work of all official enforcement agencies which have as their object the production of wholesome milk; it is the responsibility of these agencies to see that all milk intended for human consumption conforms to the applicable sanitary codes. The Council does not recognize unpasteurized milk as being suitable for acceptance.

Participation in this program lends active support to an important public health movement designed to reduce the incidence of rickets in babies and to assist in the normal growth of children and in the maintenance of adult health.

REPORT OF THE COUNCIL

The following statement has been accepted by the Council.

JAMES R. WILSON, M.D., *Secretary.*

"WE SELL MORE" TYPE OF ADVERTISING

The Council believes that acceptable food advertising should be educational and should not make improper comparisons between foods; it should attempt to promote sales on the merits of the food article itself. Quantity of sales or sales position of a product do not constitute evidence as to the nutritional quality of a product, but may be so interpreted by the public. Advertising claims of greater sales of one brand over those of competitive products are inconsistent with the Council's concept of acceptable food advertising.

ACCEPTED FOODS

The following products have been accepted as conforming to the rules of the Council.

JAMES R. WILSON, M.D., *Secretary.*

The Gerber Products Company, Fremont, Mich.

GERBER'S JUNIOR SOUP—VEGETABLES AND BACON consists of chopped carrots, chopped potatoes, chopped bacon, rice, chopped green beans, rice flour, salt dried yeast, celery powder and onion powder.

Analysis (submitted by manufacturer).—Total solids 15.00%, moisture 85.00%, ash 1.19%, fat (ether extract) 2.46%, protein (N × 6.25) 1.23%, crude fiber 0.35%, carbohydrates other than crude fiber (by difference) 9.77%.

Calories.—0.66 per gram; 18.85 per ounce.

Vitamins and Minerals	*Per Hundred Grams*
Vitamin A	2133 U.S.P. Units
Thiamine	0.076 mg.
Riboflavin	0.046 mg.
Ascorbic acid	1.53 mg.
Niacin	0.61 mg.
Calcium	14.3 mg.
Phosphorus	25.7 mg.
Iron	0.51 mg.

Use.—For use in the feeding of older infants and young children.

GERBER'S JUNIOR APPLESAUCE consists of apples and sugar.

Analysis (submitted by manufacturer).—Total solids 14.37%, moisture 85.63%, ash 0.16%, fat (ether extract) 0.12%, protein (N × 6.25) 0.13%, crude fiber 0.37%, carbohydrates other than crude fiber (by difference) 13.39%.

Calories.—0.55 per gram; 15.63 per ounce.

Vitamins and Minerals	*Per Hundred Grams*
Vitamin A	25 U.S.P. Units
Thiamine	0.008 mg.
Riboflavin	0.011 mg.
Ascorbic acid	1.34 mg.
Niacin	0.064 mg.
Calcium	4.5 mg.
Phosphorus	5.0 mg.
Iron	0.76 mg.

Use.—For use in the feeding of older infants and young children.

GERBER'S JUNIOR FOODS—APRICOT-APPLESAUCE consists of prepared apricots with approximately 45% chopped apples and 8.5% sugar with sufficient water to prepare properly.

Analysis (submitted by manufacturer).—Total solids 16.95%, moisture 83.05%, ash 0.28%, fat (ether extract) 0.17%, protein (N × 6.25) 0.45%, crude fiber 0.48%, carbohydrates other than crude fiber (by difference) 15.57%.

Calories.—0.66 per gram; 18.77 per ounce.

Vitamins and Minerals	*Per Hundred Grams*
Vitamin A	1683 U.S.P. Units
Thiamine	0.017 mg.
Riboflavin	0.014 mg.
Ascorbic acid	7.62 mg.
Niacin	0.32 mg.
Calcium	5.0 mg.
Phosphorus	8.4 mg.
Iron	0.91 mg.

Use.—For use in the feeding of older infants and young children.

GERBER'S JUNIOR FOODS—CHOPPED PEACHES consists of chopped peaches with approximately 5% sugar in sufficient water to prepare properly.

Analysis (submitted by manufacturer).—Total solids 15.12%, moisture 84.88%, ash 0.39%, fat (ether extract) 0.13%, protein (N × 6.25) 0.52%, crude fiber 0.52%, carbohydrates other than crude fiber (by difference) 13.74%.

Calories.—0.58 per gram; 16.50 per ounce.

Vitamins and Minerals	*Per Hundred Grams*
Vitamin A	466 U.S.P. Units
Thiamine	0.011 mg.
Riboflavin	0.027 mg.
Ascorbic acid	0.78 mg.
Niacin	0.93 mg.
Calcium	2.8 mg.
Phosphorus	18.1 mg.
Iron	0.24 mg.

Use.—For use in the feeding of older infants and young children.

GERBER'S JUNIOR PEARS AND PINEAPPLE consists of pears, pineapple and sugar.

Analysis (submitted by manufacturer).—Total solids 18.11%, moisture 81.89%, ash 0.26%, fat (ether extract) 0.16%, protein (N × 6.25) 0.36%, crude fiber 1.34%, carbohydrates other than crude fiber (by difference) 16.19%.

Calories.—0.68 per gram; 19.33 per ounce.

Vitamins and Minerals	*Per Hundred Grams*
Vitamin A	35 U.S.P. Units
Thiamine	0.027 mg.
Riboflavin	0.013 mg.
Ascorbic acid	0.63 mg.
Niacin	0.20 mg.
Calcium	9.0 mg.
Phosphorus	10.4 mg.
Iron	0.69 mg.

Use.—For use in the feeding of older infants and young children.

APPROVED INTERNSHIPS AND RESIDENCIES IN THE UNITED STATES

ANNUAL REPORT ON INTERNSHIPS AND RESIDENCIES BY THE COUNCIL ON MEDICAL EDUCATION AND HOSPITALS OF THE AMERICAN MEDICAL ASSOCIATION

Edward H. Leveroos, M.D.; William R. Albus, M.D.; William W. Corbett, M.D., and William W. Southard, M.D.

In this issue the Council on Medical Education and Hospitals presents its annual report on graduate training. The official list of intern and residency programs includes data regarding hospitals approved as of April 1, 1950. Lists of additional programs approved will be published from time to time in subsequent issues of THE JOURNAL, including the Educational Number scheduled for publication Sept. 9, 1950.

Hospitals approved for intern training are listed by states together with data concerning the type of ownership or control, bed capacity, number of annual admissions, type of internship, length of service, number of positions offered by the hospital, affiliated assignments, outpatient service, autopsy rate and monthly stipend. It has been considered advisable to delete the column "Percentage of Service Cases" appearing in previous reports because of the difficulty in establishing a uniform basis for reporting this statistic; the type of control will ordinarily give sufficient information in this regard. Hospitals used as major teaching units or for limited assignments by junior or senior clerks have been identified with the medical schools with which they are affiliated. A résumé of the data appearing in the approval list is given in the textual material which follows.

Approved residencies are listed by states under each specialty and subspecialty. Information presented for each approved program includes the name of the chief of service as reported by the hospital, statistical data for the service, the total number of assistant residencies and residencies offered annually and the monthly stipend. In the following specialties, the program is listed as approved for a specified number of years: dermatology, neurologic surgery, neurology, obstetrics and gynecology, orthopedic surgery, pathology, pediatrics, psychiatry, surgery and urology. In these specialties, the American board concerned has indicated that it will give credit for the number of years listed in qualifying for its examination.

In a number of specialties, approval has been extended without designating the number of years for which the program is accredited. In these specialties the residents' training will be evaluated by the American board concerned on an individual basis, unless otherwise indicated. The length of the training program for which approval is extended in the medical subspecialties is ordinarily limited to one year.

The Council now extends official approval for residency training in concurrence with the following boards:

American Board of Anesthesiology
American Board of Dermatology and Syphilology
American Board of Internal Medicine
American Board of Neurological Surgery
American Board of Obstetrics and Gynecology
American Board of Orthopedic Surgery
American Board of Otolaryngology
American Board of Pathology
American Board of Pediatrics
American Board of Physical Medicine
American Board of Plastic Surgery
American Board of Proctology
American Board of Psychiatry and Neurology
American Board of Radiology
American Board of Surgery
Board of Thoracic Surgery
American Board of Urology

Residencies in the medical subspecialties of allergy, cardiovascular, gastrointestinal and pulmonary diseases are presently approved in concurrence with the subspecialty board concerned. The Council also lists approved services in contagious diseases, general practice, malignant diseases and occupational medicine. A preliminary list of residencies in preventive medicine and public health is being prepared for publication in the 1951 Internship and Residency Number.

The publication of these lists is made possible through the assistance and cooperative effort of the hospitals conducting approved programs, the American boards mentioned previously, the federal services and the medical schools. The Council wishes to express its appreciation for their continued support and to make grateful acknowledgment of their contribution. The primary purpose of the report is to provide physicians with a source of information on graduate training which will be helpful to them in making their plans for intern and residency training. To this end, the following report is presented.

NUMBER OF INTERNSHIPS

The number of internships offered in hospitals approved by the Council has increased by 246 during the past year, in spite of a decrease in the number of approved hospitals. The trend during the past 10 years toward a greater increase in the number of internships as compared with the increase in the number of hospitals approved is reflected in table 1. Since 1940, the number of approved hospitals has increased by 9.1 per cent. During the same period, the number of internships offered has increased 17.1 per cent, or almost twice the increase which could have been expected, considering only the greater number of hospitals conducting intern training. In 1946, a postwar year, the number of hospitals which the Council had approved was almost exactly the same as approved this year, 798 in 1946 and 799 in 1950. None the less, virtually the same number of hospitals this year offer 1,372 more internships than were available four years ago. This trend toward greater demand for intern service in approved hospitals is a significant factor in considering the present shortage of interns.

Approved internships are now offered in all but four of the states (table 2). New York with 1,464 positions available, California with 897 and Pennsylvania with 837 lead in the number of internships. In addition to those available in the United States, there are 24 in the Canal Zone, 47 in approved hospitals in Hawaii and 29 in Puerto Rico.

INTERNSHIP VACANCIES

For the past two years, the percentage of internships which were vacant remained about constant, 20.5 per cent in 1948 and 19.7 per cent in 1949. This year the number of position vacancies has increased to 24.9 per cent of the total number offered. The number of vacancies reported by approved hospitals increased from 1,779 in 1949 to 2,340 in 1950. Part of this increase is due, of course, to the greater number of internships offered, 9,370 in 1950, as compared with 9,124 last year. Further, this year a greater number of hospitals gave complete information on their vacancies than the previous year. While data regarding the number of graduates of foreign medical schools serving in approved hospitals is not presently available, the number of these

TABLE 1.—*Approved Hospitals, Internships and Medical School Graduates, 1940-1950*

Year*	Number of Hospitals	Number of Internships	Number of Graduates
1940	732	7,866	5,697
1941	735	8,192	5,775
1942	740	8,353	5,161
1943	740	8,180	5,233
1944†	768	8,662	10,362
1945	785	8,429	5,138
1946	798	8,584	5,926
1947	764	8,539	6,389
1948	807	9,118	5,343
1949	807	9,124	5,664
1950	799	9,369	5,600 (Estimated)

* Year of publication.
† Quota year.
‡ Includes 2 classes.
(U. S. Army, U. S. Navy Hospitals and those outside the United States not included in 1940 to 1947 figures.)

physicians seeking intern training must be taken into account, as well as graduates of medical schools in this country, when considering the disparity between the number of internships offered in approved hospitals and the number of interns available.

The percentage of internships reported vacant ranged from 0 in New Hampshire to 100 per cent in Mississippi. While hospitals in 11 states reported fewer vacancies than last year, 33 states and the District of Columbia reported an increase in the number of internships vacant. A comparative analysis of internship vacancies for the years 1949 and 1950 is presented in table 2, including, by states, the number of approved hospitals, the number of internships offered, the number of reported vacancies and the vacancy percentage.

In that part of the report which follows, the statistical data is based on information furnished by 96 per cent of the 799 hospitals approved. Accordingly, the totals referred to hereafter will vary from those given in the preceding paragraphs. Complete information regarding the length and type of internship offered, stipend and autopsy percentage was furnished by 762 hospitals of those approved.

TYPE OF INTERNSHIP AND CONTROL

Three types of internships are approved by the Council: rotating, mixed and straight. The Council considers that the rotating internship is most likely to provide the best basic training for the graduate, whether he intends later to enter general practice or to take further training in a specialty. It provides for supervised expe-

TABLE 2.—*Comparison of Number of Internships and Number of Vacancies, 1949-1950*

State	Number of Hospitals Approved '49	Number of Hospitals Approved '50	Number of Internships Offered '49	Number of Internships Offered '50	Number of Vacancies Reported '49	Number of Vacancies Reported '50	Percentage of Vacancies '49	Percentage of Vacancies '50
Alabama	5	5	88	98	7	24	12.0	30.0
Arizona	3	3	23	60	5	17	21.7	28.3
Arkansas	2	2	36	22	10	17	27.7	77.3
California	50	53	719	897	50	110	6.9	12.3
Colorado	11	11	95	111	11	28	11.5	25.2
Connecticut	10	10	197	179	37	35	18.8	19.6
Delaware	2	3	23	28	5	2	21.7	7.1
District of Columbia	11	12	191	197	26	29	13.6	14.7
Florida	8	9	59	80	22	33	37.3	41.2
Georgia	9	6	114	86	20	60	17.5	69.5
Idaho	0	0	0	0	0	0	....	....
Illinois	63	62	696	702	139	98	19.5	14.0
Indiana	17	16	175	182	63	51	36.0	28.0
Iowa	10	11	72	81	34	22	47.2	27.2
Kansas	7	7	55	59	31	20	56.4	33.9
Kentucky	9	9	87	82	45	40	51.7	48.8
Louisiana	12	8	228	229	61	57	26.7	25.0
Maine	4	4	24	29	2	10	8.3	33.3
Maryland	21	20	305	321	69	79	23.0	24.6
Massachusetts	39	33	419	317	53	84	12.6	26.2
Michigan	31	31	368	387	77	115	20.9	29.7
Minnesota	15	15	181	184	19	44	10.5	23.9
Mississippi	2	2	16	16	12	16	75.0	100.0
Missouri	24	25	309	309	59	94	14.7	31.5
Montana	1	2	6	9	0	1	....	11.1
Nebraska	9	9	51	63	20	16	39.2	25.4
Nevada	0	0	0	0	0	0	....	....
New Hampshire	1	1	9	11	0	0	....	....
New Jersey	40	35	324	303	61	93	18.8	30.7
New Mexico	0	0	0	0	0	0	....	....
New York	167	130	1,350	1,464	161	224	10.2	15.3
North Carolina	10	9	134	122	23	27	18.5	22.1
North Dakota	4	4	11	20	5	11	45.5	55.0
Ohio	44	45	678	696	178	288	26.7	42.0
Oklahoma	5	6	68	53	13	25	27.1	47.2
Oregon	6	6	69	70	12	21	17.4	30.0
Pennsylvania	75	76	803	837	168	256	20.9	30.6
Rhode Island	5	6	32	47	6	6	18.7	12.8
South Carolina	6	5	64	60	12	7	18.7	11.7
South Dakota	3	3	21	21	9	14	42.9	66.7
Tennessee	13	13	157	203	47	61	29.9	30.0
Texas	27	25	241	197	112	90	46.4	31.3
Utah	6	6	50	54	11	19	22.0	35.2
Vermont	2	2	13	13	1	2	7.7	15.4
Virginia	15	13	138	129	30	26	26.2	20.2
Washington	17	16	134	108	27	21	20.1	19.5
West Virginia	5	6	43	66	13	22	30.2	47.6
Wisconsin	23	23	180	180	49	73	38.3	40.6
Wyoming	0	0	0	0	0	0	....	....
Totals*	785	788	9,087	9,370	1,779	2,340	19.7	24.9

* Excludes territorial approved hospitals.

TABLE 3.—*Internships Offered by Type and Control*

Control	Number of Hospitals Approved	Number of Internships Offered: Rotating	Mixed	Straight	Total
Federal:					
Army	6	154	...	...	154
Navy	14	288	...	17	305
U. S. P. H. S.	11	113	9	...	122
Vet. Adm.	1	...	...	41	41
Other Federal	2	29	...	3	32
	34	584	9	44	637
Other Governmental:					
City	51	1,040	20	231	1,290
County	20	673	4	36	713
City-County	12	201	16	7	224
State	22	530	6	24	560
	114	2,444	55	298	2,797
Nongovernmental:					
Church	292	2,285	55	95	2,435
N. P. A.	312	2,570	102	500	3,184
Partnership	2	11	...	...	11
Corporation	9	43	...	...	43
	614	4,896	157	591	5,643
Grand Totals	762	7,843	221	933	9,097

rience in the major clinical divisions of internal medicine, surgery, obstetrics and pediatrics, together with training in anesthesiology, roentgenology and pathol-

ogy. The mixed internship offers training in two or more, but not all, of the major divisions. A straight internship is limited to supervised experience in a single major clinical division, including its related subspecialties. Approval in this category is extended in internal medicine, surgery, pediatrics, obstetrics and pathology. It is ordinarily limited to hospitals affiliated with medical schools where the intern's participation in the educational activities of the school compensates to a degree for the limited nature of his hospital training.

A breakdown of the type of internships available is given in table 3. The data is presented from the standpoint of hospital control in addition to type of internship offered. In the federal group 90.5 per cent of the internships are of the rotating type, 7.9 per cent straight and 1.6 per cent mixed. The hospitals classified as governmental (other than federal) reported 87.3 per cent of their internships were rotating, 10.7 per cent were straight and 2.0 per cent mixed. The breakdown for the nongovernment group was about the same, with 86.8 per cent of the rotating variety, 10.5 per cent straight and 2.7 per cent mixed. Considering all hospitals in these groups, 87.3 per cent of the internships were rotating in nature.

The federal services now provide 6.2 per cent of the internships offered by approved hospitals, with the Navy listing 208,[1] an increase of 19 over last year, the Army 154,[1] a decrease of 3 internships during the same period, and the Federal Security Agency hospitals, including those of the Public Health Service, 154, the same number as last year. For the first time the Council has listed Veterans Administration hospitals as approved for intern training; in the two hospitals approved as of April 1, 1950, 87 internships were being offered. Other governmental hospitals, (city, county and state) provide for 31.1 per cent of the internships in this table, including 1,300 in city hospitals, 713 county, 560 state and 224 internships in city-county hospitals. Internships in nongovernmental hospitals comprise 62.7 per cent of the total with nonprofit association hospitals offering 3,184, church-sponsored hospitals 2,405, corporation-owned hospitals 43 and hospitals conducted on a partnership basis 11.

1. Does not include internships in civilian hospitals sponsored by the service.

LENGTH OF INTERNSHIP

It has been pointed out that a significant factor in the present shortage of interns has been the decrease in the number of 18 month and two year internships available, with a consequent increase in the annual demand for interns by hospitals which formerly offered appointments only on alternate years. In view of the fact that men in the intern age group are no longer being inducted into military service, permitting the hospitals more flexibility in long range planning, it might have been expected that a number of hospitals would return to their prewar schedules, offering 18 and 24 month training. Actually, the number of hospitals offering training of more than one year's duration remained almost constant during the past year. In 1949, 76 hospitals reported programs in excess of one year, while this year 77 hospitals reported programs of this type. There were 1,189 rotating, 132 straight and 82 mixed internships offered which were more than one year in length, constituting 15.6 per cent of the total number approved in the reporting hospitals. Reorganization of the internship on a two year basis by 40 per cent of those hospitals presently approved would serve to reduce the number of interns required annually to approximately the number of interns available. The development of two year programs designed for the physician intending to enter general practice and the acceptance when feasible by the specialty boards of internship training at the second year level would serve to stimulate renewed interest in the longer training periods for the intern.

TABLE 4.—*Internship Hospitals with Highest Autopsy Rates*

FEDERAL		NONFEDERAL	
1. U. S. Naval Hospital, Bremerton, Wash.	100	1. St. Benedict's Hospital, Ogden, Utah	96
2. Brooke Army Medical Center, San Antonio, Texas	98	2. Herrick Memorial Hospital, Berkeley, Calif.	94
3. Oliver General Hospital, Augusta, Ga.	90	3. Children's Hospital, Los Angeles	92
4. Army Medical Center, Washington, D. C.	90	4. Research and Educational Hospitals, Chicago	88
5. Letterman General Hospital, San Francisco	89	5. University of Nebraska Hospital, Omaha	87
6. Fitzsimmons General Hospital, Denver	84	6. Children's Hospital, Boston	86
7. U. S. Naval Hospital, Long Beach, Calif.	83	7. Beverly Hospital, Beverly, Mass.	86
8. U. S. Naval Hospital, San Diego, Calif.	81	8. Evanston Hospital, Evanston, Ill.	85
9. U. S. Marine Hospital, Galveston, Texas	81	9. Mount Sinai Hospital, Philadelphia	85
10. Veterans Administration Center, Los Angeles	81	10. Hospital of the University of Pennsylvania, Philadelphia	84
11. Valley Forge General Hospital, Phoenixville, Pa.	80	11. Loretto Hospital, Chicago	84
12. U. S. Naval Hospital, Great Lakes, Ill.	80	12. Ravenswood Hospital, Chicago	82
13. U. S. Marine Hospital, Baltimore	78	13. Bethany Hospital, Kansas City, Kan.	82
14. U. S. Naval Hospital, Mare Island, Calif.	77	14. Community General Hospital, Reading, Pa.	81
15. U. S. Marine Hospital, New Orleans	76	15. University of Minnesota Hospitals, Minneapolis	81
16. U. S. Naval Hospital, Oakland, Calif.	75	16. University of California Hospital, San Francisco	79
17. U. S. Naval Hospital, St. Albans, N. Y.	75	17. St. Luke's Hospital, Chicago	79
18. U. S. Naval Hospital, Portsmouth, Va.	75	18. Baltimore City Hospitals, Baltimore	79
19. U. S. Marine Hospital, San Francisco	75	19. Ohio State University Hospital, Columbus	78
20. U. S. Marine Hospital, Boston	75	20. University Hospital, Ann Arbor, Mich.	78

STIPENDS

Stipends offered in approved hospitals during the past year were somewhat higher than those of the previous year. A breakdown of the salaries paid in addition to maintenance shows 63 hospitals (9 per cent) paid no salaries to the intern staff; 293 hospitals (40 per cent) paid $50 or less per month; 283 hospitals (39 per cent) offered amounts ranging from $51 to $100, and the other 89 (12 per cent) paid amounts in excess of $100. The comparable percentages for 1949 were 13, 40, 33 and 9 per cent, respectively (in the remaining 5 per cent of hospitals, information regarding stipends was not submitted). During the past year

there was a decided decrease in the number of hospitals which offer no salary. Last year 104 hospitals reported that they paid no salary to the intern staff; this year the number so reporting had fallen to 63. On the other hand, the number of hospitals reporting salaries in excess of $100 per month, rose from 71 in 1949 to 89 this year.

Stipends paid by the federal services are not listed. The intern serving in a federal hospital, or in a civilian hospital under the sponsorship of a federal service, receives pay and allowances as established by government pay tables. Stipends paid in Veterans Administration hospitals are based on salary levels prevailing in the area as established by the Veterans Administration in cooperation with the Deans Committee responsible for the training program.

TABLE 5.—*Residencies Offered and Number of Vacancies by Specialties*

Specialty	Number of Hospitals Approved	Number of Residencies Offered	Number of Vacancies Reported
Allergy	9	12	1
Anesthesiology	213	731	107
Cardiovascular Disease	19	27	0
Contagious Diseases	14	60	2
Dermatology and Syphilology	60	226	7
Gastroenterology	4	9	1
General Practice	32	94	10
Internal Medicine	526	5,731	185
Malignant Diseases	20	116	4
Neurological Surgery	70	191	4
Neurology	69	200	27
Obstetrics and Gynecology	374	1,527	30
Occupational Medicine	1	2	..
Ophthalmology	160	493	18
Orthopedic Surgery	257	779	27
Otolaryngology	122	422	21
Pathology	417	1,068	105
Pediatrics	716	1,992	8
Physical Medicine	47	55	18
Plastic Surgery	22	39	..
Proctology	10	18	2
Psychiatry	231	1,754	344
Pulmonary Diseases	119	372	78
Radiology	275	950	73
Surgery	600 *	4,150 *	78
Thoracic Surgery	43	98	6
Urology	213	485	21
Totals	4,292 †	18,609	1,179

* Includes 2 categories. (See page 1204.)
† Number of residency programs in 1,079 hospitals approved for residency training.

APPROVED RESIDENCY PROGRAMS

The Council now lists approved residencies in 27 different branches of medicine, including 19 specialties in which certifying boards have been established and 5 which are considered subspecialties of a major clinical division; i. e., allergy, cardiovascular diseases, gastroenterology, pulmonary diseases and thoracic surgery. A résumé of specialties approved by the Council is presented in table 5. Information is given regarding the number of hospitals approved in the specialty, the number of residencies offered and the number of vacancies reported, as of Sept. 1, 1949.

Surgical residencies are listed in two categories: those approved by the Council and the American Board of Surgery, and a second group of hospitals, to which approval has been extended by the Council as offering satisfactory training in general surgery in preparation for residency training in the surgical specialties. An editorial commenting on these two types of surgical programs appears in this issue ("Approved Surgical Programs," page 1216). Residencies in general practice are listed for the first time with 32 hospitals offering 94 residencies in this field. Also for the first time an approved program in occupational medicine is included in the list.

In eleven of the specialties, including dermatology and syphilology, neurologic surgery, neurology, obstetrics-gynecology, orthopedic surgery, pathology, pediatrics, psychiatry, radiology, surgery and urology, programs are listed as approved for a specified number of years of training.

Residencies in radiology are being reappraised on the basis of a survey recently completed. A revised list of residencies in this specialty will appear in the Educational Number, Sept. 9, 1950.

There are now 4,292 residency training programs being conducted in 1,079 hospitals approved by the Council. The specialties in which the greatest number of hospitals are approved include: surgery, 600 approved programs; internal medicine, 528; pathology, 417; radiology, 375, and obstetrics and gynecology, 374. One program, affording opportunity for two residents, is offered in occupational medicine. While the number of approved programs increased by less than 4 per cent, the total number of residencies offered increased by approximately 8 per cent during the past year, with 18,669 positions now available in approved programs. This increase is proportionately less than that which occurred last year, when a 14 per cent increase was reported. The marked expansion in facilities for residency training which occurred during the postwar period has slowed according to information presently available.

RESIDENCY VACANCIES

Table 5 includes information on the number of vacancies in approved programs reported as of Sept. 1, 1949. While the total number of positions reported vacant was approximately 6 per cent, 15 per cent or more of the number of positions available were reported vacant in certain specialties. They include physical medicine, with 33 per cent of the residencies in this specialty reported vacant; pulmonary diseases, 21 per cent; psychiatry, 20 per cent, and anesthesiology, 15 per cent. The total number of vacancies reported in these four specialties constitutes 47 per cent of the number of positions which were not filled. The remaining 53 per cent included vacancies in 20 other specialties and subspecialties.

The largest number of vacancies occurred in psychiatry, with 344 positions unfilled; 185 residencies in internal medicine were reported vacant, 107 in anesthesiology and 105 in pathology. Together, these four specialties accounted for 741 of the 1,179 vacancies reported, or 63 per cent. In surgery and the surgical specialties, including neurologic surgery, obstetrics-gynecology, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, proctology, thoracic surgery and urology, less than 3 per cent of the residencies offered were reported vacant. Of a total number of 8,214 residencies in these specialties, 209 were not filled. Since there was an increase of 1,376 residencies in approved hospitals during the past year, it can be anticipated that there will be an increase in the number of vacancies during the next reporting period.

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APPROVED INTERNSHIPS

Council on Medical Education and Hospitals of the American Medical Association

535 North Dearborn Street, Chicago 10

Revised to April 1, 1950

HOSPITALS, 799 INTERNSHIPS, 9,398

The following general hospitals, investigated and approved by the Council on Medical Education and Hospitals, are considered in position to furnish acceptable intern training in accordance with standards adopted by the American Medical Association. Three types of internships are approved by the Council—rotating, mixed and straight:

1. A rotating internship is defined as one which provides supervised experience in internal medicine, surgery, pediatrics, obstetrics and their related subspecialties, together with experience in laboratory and radiologic diagnosis.

2. A mixed internship is defined as one which provides supervised experience in two or more, but not in all, of the clinical divisions named.

3. A straight internship is defined as one which provides supervised experience in a single department, although it may include limited opportunity for work in a related subspecialty. Straight internships are now approved in internal medicine, surgery, pediatrics, obstetrics (with or without gynecology) and pathology.

Hospitals approved for internships that are used by medical schools for undergraduate clinical clerkships on inpatient services have been identified in the following lists by the symbols **X** and **x**. Hospitals have been identified with symbol **X** when a medical school has indicated that the hospital is a major unit in the school's teaching program. Hospitals have been identified with the symbol **x** when a medical school has indicated that the hospital is used to a limited extent in the school's teaching program. Certain internships in hospitals designated as teaching hospitals may not provide for assignments to teaching services. Other internships may provide for only a portion of the internship period being spent on teaching services. Prospective interns desiring specific information concerning internship assignments to teaching services in a hospital are advised to communicate with the dean of the medical school with which the hospital is affiliated. Medical school affiliations are indicated by footnotes 10 to 81 placed immediately after the symbol **X** or **x**. The list of medical schools appears on page 1159. The plus (+) sign indicates additional approval for residencies in specialities, as shown in the Council's list of Approved Residencies and Fellowships.

Name of Hospital	Location	Bed Capacity	Total Patients Admitted	Type of Internships	Length of Service in Months	Internship Offered	Affiliated Service	Outpatient Service	Autopsy Percentage
UNITED STATES ARMY									
Letterman General Hospital [0-2]	San Francisco, Calif.	1,875	12,405	R	12	28	No	Req	80
Fitzsimmons General Hospital [0-2] x13	Denver, Colo.	2,500	12,762	R	12	24	No	None	84
Army Medical Center [0-2] x18-19	Washington, D.C.	1,650	11,666	R	12	30	No	Req	90
William Beaumont General Hospital	El Paso, Tex.	15,493	80,412	..	12	12	...	....	81
Brooke Army Medical Center [0-2]	San Antonio, Tex.	1,900	19,284	R	12	26	No	None	98
Madigan General Hospital [0]	Fort Lewis, Wash.	1,530	14,225	R	12	27	No	Req	90
Gorgas Hospital	Ancon				See Gorgas Hospital, Ancon, Canal Zone, page 1158				
Tripler General Hospital [0]	Moanalua, Honolulu, Hawaii	1,449	13,668	R	12	24	No	None	86
UNITED STATES NAVY									
U. S. Naval Hospital [0-2]	Long Beach, Calif.	1,500	18,345	R	..	21	No	Req	88
U. S. Naval Hospital [1]	Mare, Island, Calif.	700	6,591	R	12	6	No	Req	77
U. S. Naval Hospital [0-2]	Oakland, Calif.	1,500	12,815	R	12	20	No	Req	75
U. S. Naval Hospital [0-1]	San Diego, Calif.	1,700	21,192	R	12	26	No	Req	81
U. S. Naval Hospital	Jacksonville, Fla.	500	5,127	R	12	4	No	None	71
U. S. Naval Hospital [0]	Pensacola, Fla.	400	6,485	R	12	4	No	Req	71
U. S. Naval Hospital [0-2]	Great Lakes, Ill.	800	8,912	R	12	12	No	Req	80
U. S. Naval Hospital [0] x18	Bethesda, Md.	1,350	15,900	R	12	22	No	Req	65
U. S. Naval Hospital [0]	Chelsea, Mass.	829	7,949	R	12	12	...	None	56
U. S. Naval Hospital [0-2]	St. Albans, N. Y.	1,510	8,926	R	12	15	No	Req	75
U. S. Naval Hospital [0]	Philadelphia, Pa.	1,450	14,272	R	12	26	No	Req	68
U. S. Naval Hospital	Newport, R. I.	600	7,009	R	..	8	No	Req	68
U. S. Naval Hospital [0]	Portsmouth, Va.	1,468	14,614	R	12	14	No	None	75
U. S. Naval Hospital	Bremerton, Wash.	450	5,391	R	12	8	No	Req	100
U. S. PUBLIC HEALTH SERVICE									
U. S. Marine Hospital [0-2]	San Francisco, Calif.	527	5,674	R	12	12	(158)	Req	75
U. S. Marine Hospital [0-2]	Chicago, Ill.	294	2,607	R	12	6	(194)	Req	71
U. S. Marine Hospital [0-2]	New Orleans, La.	436	6,553	R	12	12	No	Req	76
U. S. Marine Hospital [0-2]	Baltimore, Md.	400	6,248	R	12	12	(137)	Req	78
U. S. Marine Hospital [0]	Boston, Mass.	340	3,906	R	12	9	(241)	None	75
U. S. Marine Hospital [1]	Detroit, Mich.	248	2,803	R	12	6	(223)	Req	51
U. S. Marine Hospital [0-2]	Stapleton, L. I., N. Y.	754	11,336	R	12	20	(212)	Req	67
U. S. Marine Hospital [0-2]	Cleveland, Ohio	266	2,725	R	12	7	(148)	Req	65
U. S. Marine Hospital [1] x72	Galveston, Tex.	167	2,936	R	12	6	(217)	None	81
U. S. Marine Hospital [1]	Norfolk, Va.	300	4,782	R	12	10	(128)	Req	61
U. S. Marine Hospital [0-2]	Seattle, Wash.	515	6,071	R	12	12	No	Req	75
FEDERAL SECURITY AGENCY									
Freedmens Hospital [0-2] X20	Washington, D. C.	476	7,659	R-S	12	20	No	Req	51
St. Elizabeth's Hospital [0-2] x19	Washington, D. C.	6,800	1,470	R	24	12	(360)	Req	79
VETERANS ADMINISTRATION									
Veterans Admin. Hospital [0]	Los Angeles, Calif.	3,558	16,954	S	12	41	No	Req	81
Veterans Admin. Hospital [0]	Van Nuys, Calif.	30,080	50,681	..	12	46	...	....	92

Abbreviations and other references will be found on pages 1158 and 1168.

Name of Hospital	Location	Control	Bed Capacity	Total Patients Admitted	Type of Internship	Length of Service in Months	Internships Offered	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month
ALABAMA											
Carraway Methodist Hospital [1]	Birmingham	Church	225	7,845	R	12-24	8	No	Req	49	75
Jefferson Hillman Hospital [1-2] X10	Birmingham	State	564	20,324	R	12	56	No	Req	47	25
Employees' Hospital of Tennessee Coal, Iron and Railroad Company [2] x10	Fairfield	NPAssn	300	10,314	R	12	10	No	Req	44	75
Holy Name of Jesus Hospital	Gadsden	Church	120	6,571	R	12	2	No	None	28	75
City Hospital [1]	Mobile	Cy't'o	800	7,850	R	12	12	No	Req	51	150
ARIZONA											
Good Samaritan Hospital [1]	Phoenix	Church	210	6,300	R	12	7	No	None	38	100
St. Joseph's Hospital [2]	Phoenix	Church	192	8,354	R	12	8	No	None	31	75
St. Monica's Hospital and Health Center [2]	Phoenix	Church	201	7,856	R	12	12	(105)	Req	44	75
St. Mary's Hospital and Sanatorium [2]	Tucson	Church	221	7,417	R	12	3	(104)	Req	37	75
Tucson Medical Center [2]	Tucson	NPAssn	240	5,704	R	12	10	(253)	Req	36	50
ARKANSAS											
Arkansas Baptist Hospital [2]	Little Rock	Church	300	10,800	R	12	10	No	None	20	75
University Hospital [2]-XII	Little Rock	State	200	4,670	R	12	12	No	None	49	75
CALIFORNIA											
Herrick Memorial Hospital [2]	Berkeley	NPAssn	190	8,035	R	12	6	No	Req	94	83
San Joaquin General Hospital [2]	French Camp	County	640	8,320	R	12	12	No	Req	42	125
General Hospital of Fresno County [2]	Fresno	County	602	9,577	R	12	18	No	Req	33	100
Glendale Sanitarium and Hospital [2]-x13	Glendale	Church	225	7,226	R	12	8	No	Req	41	128
Loma Linda Sanitarium and Hospital [2]-X13	Loma Linda	Church	125	4,892	R	12	6	No	Req	75	104
Seaside Memorial Hospital [2]	Long Beach	NPAssn	370	15,270	R	12	12	(185)	Req	20	50
California Hospital [2]	Los Angeles	Church	317	14,702	R	12	14	(131)	Req	30	50
Cedars of Lebanon Hospital [2]	Los Angeles	NPAssn	310	11,406	R	12	12	(109)	Req	36	60
Childrens Hospital [2]-x14	Los Angeles	NPAssn	203	5,950	S	12	1	(101)	Req	92	60
Hospital of the Good Samaritan [2]	Los Angeles	Church	400	12,173	R	12	20	(184)	Req	42	60
Los Angeles County Hospital [2]-x13-14	Los Angeles	County	3,704	64,952	R	12-24	135	No	Req	42	60
Presbyterian Hospital-Olmsted Memorial [2]	Los Angeles	Church	300	11,481	R	12	11	(186)	Req	36	60
Queen of Angels Hospital [2]	Los Angeles	Church	302	10,972	R	12	16	No	Req	55	80
St. Vincent's Hospital [2]	Los Angeles	Church	238	9,082	M	12	6	No	None	42	60
Santa Fe Coast Lines Hospital	Los Angeles	Church	106	4,257	R	12	3	(102)	Req	77	60
White Memorial Hospital [2]-X13	Los Angeles	Church	207	9,216	R	12	17	No	Req	59	91
Highland Alameda County Hospital [2-3]	Oakland	County	486	11,374	R	12	26	(187)	Req	50	75
Permanente Foundation Hospital [2]	Oakland	XPAssn	315	9,282	R	12	10	No	None	70	75
Orange County General Hospital [1]	Orange	County	426	3,589	R	12	14	No	Req	84	134
Collis P. and Howard Huntington Memorial Hospital [2]	Pasadena	XPAssn	238	10,305	R	12	8	No	Req	71	117.50
St. Luke Hospital	Pasadena	Church	160	7,549	R	12	3	No	None	37	60
Riverside County Hospital [1]	Riverside	County	320	5,776	R	12-24	8	No	Req	45	158
Sacramento County Hospital [1]	Sacramento	County	375	20,823	R	12	19	No	Req	50	105
San Bernardino County Charity Hospital [2]-x13	San Bernardino	County	343	5,470	R	12	11	No	Req	55	110
Mercy Hospital [2]	San Diego	Church	332	13,877	R	12	8	No	Req	33	55
San Diego County General Hospital [2]	San Diego	County	984	8,851	R	12	17	No	Req	51	65
Children's Hospital [2]-x12	San Francisco	XPAssn	250	6,071	R	12	8	No	Req	61	85
Franklin Hospital [2]	San Francisco	XPAssn	250	7,710	R-S	12	10	No	None	50	85
French Hospital [2]	San Francisco	XPAssn	225	6,458	R	12	9	No	Req	54	80
Mary's Help Hospital [2]	San Francisco	Church	188	6,285	R	12	6	No	Req	35	80
Mount Zion Hospital [2-3]	San Francisco	XPAssn	163	5,795	R	12	12	No	Req	70	75
St. Joseph's Hospital [2]	San Francisco	Church	238	7,203	R	12	8	No	None	39	80
St. Luke's Hospital [2]	San Francisco	Church	249	7,851	R	12	6	No	Req	44	80
St. Mary's Hospital [2]	San Francisco	Church	371	11,042	R	12	14	No	Req	48	80
San Francisco Hospital [2]-X12-15	San Francisco	Cy't'o	1,276	21,650	R	12	56	(229)	Req	21	110
Southern Pacific General Hospital [2]	San Francisco	XPAssn	450	7,747	R	12	16	(105)	Req	82	60
Stanford University Hospitals [2]	San Francisco	XPAssn	356	11,249	S	12	15	No	Req	68	75
University of California Hospital [2]-X12	San Francisco	State	288	8,141	S	12	24	(243)	Req	70	75
Santa Clara County Hospital [2]	San Jose	County	446	6,249	R	12	12	No	Req	68	75
St. Francis Hospital [2]	Santa Barbara	Church	91	3,402	S	12	3	No	None	53	100
Santa Barbara Cottage Hospital [2]	Santa Barbara	XPAssn	210	6,957	R	12	14	(194)	Req	33	50
Santa Barbara General Hospital [1]	Santa Barbara	County	305	9,236	R	12	11	(262)	Req	43	50
St. John's Hospital [2]	Santa Monica	Church	108	6,697	R	12	6	No	Req	35	50
Santa Monica Hospital [1]	Santa Monica	Church	178	9,430	R	12	10	(132)	Req	70	50
Harbor General Hospital [2]	Torrance	County	580	6,881	R	12	25	No	Req	51	60
COLORADO											
Glockner-Penrose Hospital [2]	Colorado Springs	Church	220	4,892	R	12	4	No	Req	43	50
Mercy Hospital [2]	Denver	Church	250	10,342	R	12	10	No	Req	45	30
Porter Sanitarium and Hospital [1]	Denver	Church	130	5,128	R	12	6	(188)	Req	42	100
Presbyterian Hospital [2]-X10	Denver	Church	170	7,306	R	12	6	No	Req	30	30
St. Anthony Hospital [1]	Denver	Church	225	9,044	R	12	12	(189)	Req	49	30
St. Joseph's Hospital [2]	Denver	Church	336	11,262	R	12	6	No	Req	38	50
St. Luke's Hospital [2]	Denver	Church	261	11,448	R	12	9	(190)	Req	48	30
University of Colorado Medical Center Colorado General Hospital [2]-X10	Denver	State	270	5,187	R	12	12	No	Req	77	30
Denver General Hospital [2]-X10	Denver	Cy't'o	495	9,035	R	12	16	No	Req	51	30
Corwin Hospital [2]	Pueblo	Church	206	6,716	R	12	6	No	Req	56	50
CONNECTICUT											
Bridgeport Hospital [2]	Bridgeport	NPAssn	320	13,697	R	12	12	No	None	48	100
St. Vincent's Hospital [2]	Bridgeport	Church	345	11,305	R	12	12	(159)	Req	33	100
Hartford Hospital [2-3]	Hartford	NPAssn	864	25,871	R-M	24	28	No	Req	61	...
St. Francis Hospital [2-3]	Hartford	Church	538	17,908	R	12	20	(246)	Req	33	35
Meriden Hospital [1]	Meriden	NPAssn	121	5,259	R	12	4	No	Req	45	100
Middlesex Hospital [1]	Middletown	NPAssn	150	4,940	R	12-24	5	(106)	Req	39	50
New Britain General Hospital [2]	New Britain	NPAssn	257	7,392	R	12	6	No	None	62	50
Grace-New Haven Community Hospital Grace Unit [2]	New Haven	NPAssn	163	5,892	R	12	6	No	Req	31	25
New Haven Unit (University Service) [2-3] -X17	New Haven	NPAssn	538	11,570	S	12-24	35	(132)	Req	60	...
Hospital of St. Raphael [2]	New Haven	Church	370	14,619	R-M	24	15	No	Req	38	50
Lawrence and Memorial Associated Hospitals [2]	New London	NPAssn	261	6,980	R	12	4	No	None	17	105
Norwalk Hospital [2]	Norwalk	NPAssn	220	7,955	R	12	6	No	Req	47	117.50
William W. Backus Hospital	Norwich	NPAssn	138	4,676	..	12	3	...	.....	21	150
Stamford Hospital [2]	Stamford	NPAssn	232	7,278	R	12	9	No	Req	60	100
St. Mary's Hospital [2]	Waterbury	Church	324	10,979	R	12	6	No	Req	25	100
Waterbury Hospital [2-3]	Waterbury	NPAssn	310	10,700	R	12	8	No	Req	54	75

Abbreviations and other references will be found on pages 1130 and 1168.

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Name of Hospital	Location	Control	Bed Capacity	Total Patients Admitted	Type of Internship	Length of Service in Months	Internships Offered	Affiliated Service	Outpatient Service	Autopsy Permitted	Stipend per Month
DELAWARE											
Delaware Hospital[1-2]	Wilmington	NPAssn	376	10,201	R	12	15	No	Req	68	75
Memorial Hospital [1]-X21	Wilmington	NPAssn	210	5,573	R	12	6	No	Req	64	100
Wilmington General Hospital [1]	Wilmington	NPAssn	184	5,601	R	12	7	No	Req	60	100
DISTRICT OF COLUMBIA											
Central Dispensary and Emergency Hospital [1-2]-x19	Washington	NPAssn	310	7,113	R	12	14	(192)	Req	52	25
Doctors Hospital [1]	Washington	Corp	232	9,489	R	12	6	(195)	None	67	50
Gallinger Municipal Hospital [1-2]-X16-19-x20	Washington	City	1,416	21,600	S	12	46	No	Req	80	75
Garfield Memorial Hospital [1]	Washington	NPAssn	277	9,693	R	12	14	No	Req	69	15
Georgetown University Hospital [1]-X19	Washington	Church	360	10,553	S	12	30	(195)	Req	52	25
George Washington University Hospital [1]-X19	Washington	NPAssn	695	11,344	R	12	29	No	Req	64	25
Providence Hospital [1]-x18	Washington	Church	297	11,219	R	12	12	No	Req	79	50
Sibley Memorial Hospital [1]	Washington	Church	200	11,273	R	12	9	No	Req	60	50
Washington Sanitarium and Hospital [1]	Washington	Church	100	4,221	R	12	4	No	Req	40	100
FLORIDA											
Brewster Hospital [1]	Jacksonville	Church	140	2,880	R	12	2	No	Req	10	60
Dural Medical Center [2]	Jacksonville	County	326	7,202	R	12	10	No	Req	47	15
St. Luke's Hospital [1]	Jacksonville	NPAssn	180	7,503	R	12	4	No	Nsg	37	65
St. Vincent's Hospital [1]	Jacksonville	Church	200	12,650	R	12-24	13	(199)	Req	63	50
Jackson Memorial Hospital [1-2]	Miami	County	533	17,896	R	12	28	No	Req	61	34.50
Orange Memorial Hospital [1]	Orlando	NPAssn	214	6,228	R	12	7	No	None	19	100
Tampa Municipal Hospital	Tampa	City	300	10,507	R	12	8	No	Req	19	75
GEORGIA											
Crawford W. Long Memorial Hospital [1]	Atlanta	NPAssn	444	18,372	R	12	16	(221)	Req	42	50
Grady Memorial Hospital [1-2]-X21	Atlanta	Counties	600	17,670	S	12	30	No	Req	54	10
Piedmont Hospital [1]-x21	Atlanta	NPAssn	132	5,803	R	12	6	No	None	50	85
St. Joseph's Infirmary [1]	Atlanta	Church	130	6,262	R	12	6	(197)	Req	41	75
University Hospital [1]-X22	Augusta	City	508	15,765	R	12	18	No	Req	51	50
Emory University Hospital [1]-X21	Emory University	NPAssn	277	9,901	S	12	10	(198)	Req	31	25
ILLINOIS											
Macneal Memorial Hospital [1]	Berwyn	NPAssn	165	8,077	R	12	6	No	Req	47	150
Burnham City Hospital [1]	Champaign	City	125	5,333	R	12	4	(199)	Req	28	100
American Hospital [2]	Chicago	NPAssn	132	5,178	R	12	5	No	Req	42	25
Augustana Hospital [2]	Chicago	Church	275	8,042	R	12	10	No	Req	54	25
Chicago Memorial Hospital [2]	Chicago	NPAssn	92	4,200	R	12	5	No	Req	44	150
Columbus Hospital	Chicago	Church	132	3,906	R	12	4	(110)	None	41	75
Cook County Hospital [1-2]-X23-24-26-80	Chicago	County	3,200	73,332	R	24	120	No	Req	24	15
Edgewater Hospital [2]	Chicago	NPAssn	138	6,027	R	12	6	No	None	28	100
Englewood Hospital [2]	Chicago	NPAssn	161	6,073	R	12	6	No	None	32	100
Evangelical Hospital [1]	Chicago	Church	165	5,089	R-S	12	9	No	None	21	100
Garfield Park Community Hospital	Chicago	NPAssn	150	5,702	R	12	6	No	None	30	125
Grant Hospital [1]-x24	Chicago	NPAssn	226	7,501	R	12	10	No	Req	62	50
Henrotin Hospital [2]	Chicago	NPAssn	160	8,600	R	12	4	No	Req	71	75
Holy Cross Hospital	Chicago	Church	143	6,444	R	12	6	No	None	49	100
Hospital of St. Anthony de Padua [2]	Chicago	Church	217	8,116	R	12	9	No	None	36	100
Illinois Central Hospital [2]	Chicago	NPAssn	200	9,200	R	12	9	(201)	Req	27	110
Illinois Masonic Hospital [1]	Chicago	NPAssn	225	7,200	R	12	10	No	Req	31	50
Jackson Park Hospital [1]	Chicago	Corp	136	4,725	R	12	6	No	None	32	150
Loyola University Hospital Group	Chicago	Church	139	5,150	R	12	8	No	None	64	75
Loretto Hospital [1]			...	.....	..	..	..	...	.....	..	..
University Hospital			...	.....	..	..	..	...	.....	..	..
Lutheran Deaconess Home and Hospital [2]	Chicago	Church	100	7,178	R	12	3	No	Req	32	25
Mercy Hospital-Loyola University Clinics [1]-X30	Chicago	Church	309	9,654	R	12	12	(194)	Req	44	75
Michael Reese Hospital [1]-x24-30	Chicago	NPAssn	647	17,549	R	12	40	(111)	Req	70	15
Mother Cabrini Memorial Hospital	Chicago	Church	150	4,524	R	12	6	No	None	29	100
Mount Sinai Hospital [1]-X29	Chicago	NPAssn	285	10,743	R-S	12	16	(112)	OP	45	15
Norwegian-American Hospital [2]	Chicago	NPAssn	175	7,736	R	12	6	No	None	41	100
Passavant Memorial Hospital [1]-X24	Chicago	NPAssn	200	7,450	R	12	15	(112)	None	70	...
Presbyterian Hospital [1]-X30	Chicago	NPAssn	435	12,925	R-S	12	30	No	None	70	...
Provident Hospital [1]	Chicago	NPAssn	100	5,917	R	12	9	No	None	56	75
Ravenswood Hospital [1]	Chicago	NPAssn	207	7,308	R	12	6	No	None	62	50
Research and Educational Hospitals [1]-X26	Chicago	State	432	7,283	R	12	24	No	Req	28	...
Rossland Community Hospital	Chicago	NPAssn	101	3,779	R	12	4	No	None	34	175
St. Anne's Hospital [1]-x30	Chicago	Church	320	11,084	R	12	14	No	Req	44	100
St. Bernard's Hospital [2]	Chicago	Church	140	6,461	R	12	8	No	None	31	100
St. Elizabeth's Hospital [2]	Chicago	Church	278	9,449	R	12	6	No	None	38	100
St. Joseph Hospital [1]-X24-x30	Chicago	Church	230	8,992	R	12	6	No	Req	79	50
St. Luke's Hospital [1]-X24-x30	Chicago	NPAssn	547	17,137	R	12	24	No	Req	79	...
St. Mary of Nazareth Hospital [2]	Chicago	Church	203	9,500	R	12	6	No	Req	55	100
South Chicago Community Hospital [1]	Chicago	NPAssn	200	7,900	R	12	7	No	None	33	150
Swedish Covenant Hospital [2]	Chicago	Church	180	6,370	R	12	6	No	None	37	125
University of Chicago Clinics [1]-X25	Chicago	NPAssn	536	13,656	R	12	24	No	Req	77	...
Wesley Memorial Hospital [1]-X26	Chicago	Church	371	15,086	R	12	32	(195)	None	61	...
Women and Children's Hospital [2]	Chicago	NPAssn	115	3,499	R	12	4	No	Req	35	50
Woodlawn Hospital [2]	Chicago	NPAssn	124	3,880	R	12	4	No	Req	60	100
St. Mary's Hospital [1]	East St. Louis	Church	263	6,967	R	12	10	No	None	40	125
Memorial Hospital [1]	Elmhurst	NPAssn	184	8,074	R	12	6	No	None	62	100
Evanston Hospital [1]-X24	Evanston	NPAssn	255	7,757	R	12	16	(130)	Req	63	...
St. Francis Hospital [1]	Evanston	Church	250	11,855	R	12	12	No	None	55	50
Little Company of Mary Hospital [1]-x30	Evergreen Park	Church	250	11,653	R	12	12	No	None	38	100
St. Joseph's Hospital	Joliet	Church	200	9,147	R	12	5	No	None	100	100
Moline Public Hospital [1]	Moline	City	100	6,342	R	12	3	No	Req	23	100
Oak Park Hospital	Oak Park	Church	148	5,448	R	12	6	No	None	39	100
West Suburban Hospital [1]-x26	Oak Park	NPAssn	227	11,862	R	12	12	No	Req	30	50
Methodist Hospital of Central Illinois [2]	Peoria	Church	200	7,800	M	12	6	No	None	30	75
St. Francis Hospital [1]	Peoria	Church	455	15,015	R	12	12	No	Req	49	50
St. Mary's Hospital	Quincy	Church	195	5,363	R	12	6	No	None	39	75
Rockford Memorial Hospital [1]	Rockford	NPAssn	130	6,675	R	12	4	No	None	30	50
St. Anthony's Hospital [1]	Rockford	Church	256	7,708	R	12	6	(112)	None	45	75
Swedish-American Hospital	Rockford	NPAssn	125	5,303	R	12	3	No	None	45	100
Memorial Hospital [1]	Springfield	NPAssn	253	7,718	R	12	4	No	None	27	100

Abbreviations and other references will be found on pages 1150 and 1166.

Name of Hospital	Location	Control	Bed Capacity	Total Patients Admitted	Type of Internship	Length of Service in Months	Internships Offered	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month
INDIANA											
St. Catherine's Hospital [1]	East Chicago	Church	264	8,179	R	12	7	No	None	28	75
Protestant Deaconess Hospital [1]	Evansville	Church	245	11,086	R	12	4	(186)	Req	15	100
Methodist Hospital [1]	Gary	Church	200	9,358	R	12	8	No	None	20	100
St. Mary's Mercy Hospital [a]	Gary	Church	210	7,432	R	12	6	No	None	20	125
St. Margaret Hospital [a]	Hammond	Church	240	10,569	R	12	10	No	None	18	150
Indianapolis General Hospital [a]-X27	Indianapolis	City	685	10,761	R	12-24	37	(135)	Req	44	70
Indiana University Medical Center [a]-X27	Indianapolis	State	299	11,805	R	12	22	(160)	Req	15	112.50
Methodist Hospital [a]	Indianapolis	Church	617	27,403	R	12	24	No	None	30	137.50
St. Vincent's Hospital [a]	Indianapolis	Church	325	13,139	R	12	12	No	Req	39	150
St. Elizabeth Hospital [a]	La Fayette	Church	305	9,808	R	12	10	No	Req	41	100
St. Joseph Hospital [1]	Mishawaka	Church	172	8,759	R	12	5	No	None	32	100
Ball Memorial Hospital [a]	Muncie	NPAssn	217	9,022	R	12	9	No	None	37	75
Memorial Hospital [a]	South Bend	NPAssn	217	8,305	R	12	6	No	Req	42	100
St. Joseph's Hospital [1]	South Bend	Church	184	7,258	R	12-24	6	No	Req	39	100
St. Anthony's Hospital [1]	Terre Haute	Church	196	6,179	R	12	4	No	None	24	150
Union Hospital [a]	Terre Haute	NPAssn	166	5,115	R	12	4	No	None	23	150
IOWA											
Mercy Hospital-X43	Cedar Rapids	Church	294	7,878	R	12	4	No	None	28	100
St. Luke's Methodist Hospital [1]	Cedar Rapids	Church	300	8,324	R	12	6	No	None	38	100
Jennie Edmundson Memorial Hospital [1]	Council Bluffs	NPAssn	135	5,452	R	..	3	No	None	24	75
Mercy Hospital [1]	Council Bluffs	Church	185	5,567	R	12	4	No	None	32	100
Mercy Hospital [1]	Davenport	Church	276	8,706	R	12	6	No	Req	22	75
Broadlawns Polk County Hospital [a]	Des Moines	County	167	4,732	R	12	12	No	Req	40	75
Iowa Lutheran Hospital [1]	Des Moines	Church	135	5,712	R	12	5	(136)	Req	18	125
Iowa Methodist Hospital [a]	Des Moines	Church	312	11,548	R	12	10	No	Req	68	75
Mercy Hospital [a]	Des Moines	Church	190	10,051	R	12-24	9	(161)	Req	52	150
University Hospitals [a]-X28	Iowa City	State	301	20,565	R	12	20	No	Req	68	35
St. Joseph Mercy Hospital [1]	Sioux City	Church	220	9,301	R	12	3	No	Req	14	175
KANSAS											
Bethany Hospital [1]	Kansas City	Church	150	6,456	R	12	4	No	Req	82	100
Providence Hospital [1]	Kansas City	Church	140	4,894	R	12	4	No	Req	43	100
St. Margaret's Hospital [a]	Kansas City	Church	201	3,516	R	12	6	No	None	45	125
University of Kansas Medical Center [a]-X29	Kansas City	State	400	8,423	R	12-24	15	No	Req	49	25
St. Francis Hospital [a]	Wichita	Church	470	15,405	R	12	12	No	None	38	100
Wesley Hospital [a]	Wichita	Church	370	13,619	R	12	12	(114)	Req	39	75
Wichita Hospital [1]	Wichita	Church	140	3,706	R	12	6	(197)	Req	43	150
KENTUCKY											
St. Elizabeth Hospital [1]	Covington	Church	212	9,302	R	12	10	No	Req	36	125
Good Samaritan Hospital [a]	Lexington	Church	285	9,615	R	12	6	No	None	29	75
St. Joseph Hospital [a]	Lexington	Church	320	10,695	R	12	8	No	None	52	75
Kentucky Baptist Hospital	Louisville	Church	285	10,440	R	12	10	No	None	27	50
Louisville General Hospital [a]-X30	Louisville	City	381	9,492	R	12	22	(115)	Req	34	30
Norton Memorial Infirmary [a]	Louisville	NPAssn	280	7,800	R	12	6	No	None	37	50
St. Anthony's Hospital	Louisville	Church	219	7,205	R	12	3	No	None	32	125
St. Joseph Infirmary [a]	Louisville	Church	400	13,240	R	12	12	No	Req	45	50
SS. Mary and Elizabeth Hospital	Louisville	Church	175	7,626	R	12	4	(138)	None	30	100
LOUISIANA											
Baptist Hospital [a]	Alexandria	Church	210	8,101	R	12	6	No	Req	19	100
Charity Hospital of Louisiana [a]-X31-32	New Orleans	State	3,105	50,065	R	12	122	No	Req	40	70
Hotel Dieu, Sisters' Hospital [a]	New Orleans	Church	290	11,539	R	12	12	No	None	55	50
Mercy Hospital-Soniat Memorial	New Orleans	Church	125	4,788	R	12	6	No	None	31	100
Southern Baptist Hospital [a]	New Orleans	Church	150	13,833	R	12	12	No	None	30	50
Touro Infirmary [a]-X32	New Orleans	NPAssn	372	14,355	R	12	21	No	Req	60	70
Shreveport Charity Hospital [a]	Shreveport	State	650	13,459	R	12	36	No	None	42	70
MAINE											
Eastern Maine General Hospital [a]	Bangor	NPAssn	202	8,178	R	12	8	No	Req	37	25
Central Maine General Hospital [a]	Lewiston	NPAssn	235	5,015	R	12	6	No	Req	50	25
St. Mary's General Hospital [1]	Lewiston	Church	125	4,214	R	12	3	No	Req	28	80
Maine General Hospital [a]	Portland	NPAssn	363	9,751	R	12-24	12	No	Req	41	25
MARYLAND											
Baltimore City Hospitals [a]-X33-X34	Baltimore	City	1,941	6,782	R-S	12	42	No	Req	79	15
Bon Secours Hospital [a]	Baltimore	Church	150	4,505	R	12	3	No	Req	23	30
Church Home and Hospital [a]	Baltimore	Church	166	5,192	R-S	12	5	No	Req	46	25
Franklin Square Hospital [a]	Baltimore	NPAssn	206	6,023	R	12	12	(265)	Req	58	50
Hospital for Women [a]	Baltimore	NPAssn	120	4,626	R	12	5	(116)	Req	47	50
Johns Hopkins Hospital [a]-X35	Baltimore	NPAssn	981	19,781	S	12	60	No	Req	75	...
Maryland General Hospital [a]	Baltimore	Church	232	6,212	R	12	8	No	Req	41	25
Mercy Hospital [a]-X34	Baltimore	Church	285	9,395	R	12	14	No	Req	46	25
Provident Hospital and Free Dispensary [a]	Baltimore	NPAssn	120	3,366	R	12	8	No	Req	30	50
St. Agnes Hospital [a]	Baltimore	Church	221	7,066	R	12	4	No	Req	50	50
St. Joseph's Hospital [a]	Baltimore	Church	250	7,776	R	12	8	No	Req	29	50
Sinai Hospital [a]	Baltimore	NPAssn	307	10,101	R-S	12	22	No	Req	50	10
South Baltimore General Hospital [a]	Baltimore	NPAssn	158	5,155	R	12	6	No	Req	63	40
Union Memorial Hospital [a]	Baltimore	NPAssn	342	8,801	R	12	17	No	Req	55	...
University Hospital [a]-X34	Baltimore	State	455	11,072	R	12	24	No	Req	55	...
West Baltimore General Hospital [a]	Baltimore	NPAssn	187	6,252	R	12	7	(117)	Req	61	50
Washington County Hospital [1]	Hagerstown	NPAssn	158	6,682	R	12	6	No	None	18	25
Peninsula General Hospital [1]	Salisbury	NPAssn	177	6,873	M	24	9	No	Req	38	50
MASSACHUSETTS											
Beverly Hospital [a]	Beverly	NPAssn	160	5,260	R	12	4	No	Req	86	50
Beth Israel Hospital [a]-X36-37	Boston	NPAssn	180	5,909	S	12	13	(118)	Req	67	...
Boston City Hospital [a]-X35-36-37	Boston	City	2,370	39,172	S	12	77	No	Req	41	20
Carney Hospital [a]-X37	Boston	Church	220	4,197	S	12	5	(201)	Req	41	25
Children's Hospital [a]-X36-37	Boston	NPAssn	345	9,460	S	12	1	(139)	None	86	...
Faulkner Hospital [a]	Boston	NPAssn	144	3,768	M	24	3	(119)	None	76	25
Massachusetts General Hospital-X36	Boston	NPAssn	...	.....	..	..	...	...	.....	..	..
Massachusetts Memorial Hospital [a]-X36	Boston	NPAssn	437	8,430	S	6-12	18	(245)	Req	65	...
New England Hospital for Women and Children [a]-X37	Boston	NPAssn	180	4,561	R	12	8	No	Req	50	...

Abbreviations and other references will be found on pages 1150 and 1160.

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Name of Hospital	Location	Control	Bed Capacity	Total Patients Admitted	Type of Internship	Length of Service in Months	Internships Offered	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month
MASSACHUSETTS—Continued											
Peter Bent Brigham Hospital [6]-X36	Boston	NPAssn	250	4,971	S	12	36	(199)	Req	60	...
St. Elizabeth's Hospital [6]-X37	Boston	Church	256	9,461	R	12	8	No	Req	62	50
Brockton Hospital [3]	Brockton	NPAssn	130	3,681	R	12	4	No	Req	44	50
Cambridge City Hospital [6]-x37	Cambridge	City	270	5,852	R	12	8	No	Req	60	60
Mount Auburn Hospital [6]-x36-37	Cambridge	NPAssn	222	7,096	R	12	6	No	Req	60	...
Truesdale Hospital [6]	Fall River	NPAssn	170	4,457	R	12	6	No	Req	32	50
Burbank Hospital [3]	Fitchburg	City	250	5,867	R	12	4	No	Req	36	150
Holyoke Hospital [6]	Holyoke	NPAssn	140	3,740	R	12	3	No	Req	30	25
St. John's Hospital [3]	Lowell	Church	180	5,401	R	12-24	4	No	Req	29	100
St. Joseph's Hospital	Lowell	Church	135	4,843	R	12	2	No	Req	16	100
Lynn Hospital [6]	Lynn	NPAssn	242	7,819	R	12	6	No	Req	42	50
St. Luke's Hospital [3]	New Bedford	NPAssn	298	9,817	R	12	6	No	Req	30	25
Newton-Wellesley Hospital [6]	Newton Lower Falls	NPAssn	240	8,225	R	12-24	6	No	Req	50	25
Pittsfield General Hospital	Pittsfield	NPAssn	140	4,832	R	12	2	No	Req	25	...
Quincy City Hospital [6]	Quincy	City	265	8,486	R	12	12	No	Req	58	100
Salem Hospital [6]	Salem	NPAssn	218	7,221	R	12	6	No	Req	39	50
Mercy Hospital [3]	Springfield	Church	340	10,105	R	12	9	No	Req	39	40
Springfield Hospital [6]	Springfield	NPAssn	281	7,861	R	12	8	(139)	Req	42	...
Waltham Hospital [3]	Waltham	NPAssn	174	4,677	R	12	4	No	Req	32	125
Memorial Hospital [6] [3]	Worcester	NPAssn	309	8,106	R	12-24	10	No	Req	55	50
St. Vincent Hospital [6]	Worcester	Church	240	4,448	N	12	8	No	Req	42	25
Worcester City Hospital [6] [3]-x37-75	Worcester	City	400	11,913	R	24	20	No	Req	47	50
MICHIGAN											
St. Joseph's Mercy Hospital [6]	Ann Arbor	Church	250	8,282	R	12	8	No	Req	67	100
University Hospital [6] [3]-X30	Ann Arbor	State	979	17,041	R	12	50	No	Req	78	83.33
Community Hospital [3]	Battle Creek	NPAssn	100	4,570	R	12	2	No	None	24	100
Leila Y. Post Montgomery Hospital [6]	Battle Creek	Church	175	7,084	R	12	2	No	Req	33	100
Charles Godwin Jennings Hospital [6]	Detroit	NPAssn	83	3,040	R	12	4	(162)	None	25	125
City of Detroit Receiving Hospital [6]-X39	Detroit	City	592	19,323	R	12	40	(247)	Req	54	155.33
Detroit Memorial Hospital	Detroit	NPAssn	340	11,461	..	12	12	...	....	47	75
Evangelical Deaconess Hospital [6]	Detroit	Church	185	7,006	R	12	6	No	Req	32	125
Grace Hospital [6]	Detroit	NPAssn	641	24,341	R	12	18	No	Req	42	50
Harper Hospital [6]	Detroit	NPAssn	547	21,371	R	12	36	(163)	Req	53	110
Henry Ford Hospital [6] [3]	Detroit	NPAssn	600	18,239	R	12	30	No	None	67	170
Mount Carmel Mercy Hospital [6]	Detroit	Church	400	17,030	R	12	12	(140)	Req	31	100
Providence Hospital [6]	Detroit	Church	325	16,924	R	12	16	(120)	Req	56	125
St. Joseph's Mercy Hospital [6]	Detroit	Church	151	7,154	R	12	6	(127)	Req	17	100
Woman's Hospital [6]	Detroit	NPAssn	216	9,756	R	12-24	9	(301)	Req	43	140
Wayne County General Hospital and Infirmary [6]-X39	Eloise	County	3,480	7,172	R	12	24	(141)	Req	28	205
Hurley Hospital [6]	Flint	City	415	16,721	R	12	16	No	None	33	60
St. Joseph Hospital	Flint	Church	230	11,196	R	12	6	No	None	36	150
Blodgett Memorial Hospital [6]	Grand Rapids	NPAssn	179	6,440	R	12	6	(142)	Req	58	150
Butterworth Hospital [6]	Grand Rapids	NPAssn	270	14,587	R	12	12	No	Req	65	50
St. Mary's Hospital [6]	Grand Rapids	Church	256	9,533	R	12	10	No	Req	37	100
Highland Park General Hospital [6]	Highland Park	City	253	9,312	R	12	10	No	Req	10	100
W. A. Foote Memorial Hospital [3]	Jackson	City	156	6,745	R	12	2	No	None	40	100
Bronson Methodist Hospital [6]	Kalamazoo	Church	140	5,928	R	12	4	No	None	65	100
Edward W. Sparrow Hospital [6]	Lansing	NPAssn	231	9,446	R	12	12	(264)	Req	50	250
St. Lawrence Hospital [3]	Lansing	Church	275	8,815	R	12	10	(239)	None	32	225
Pontiac General Hospital [6]	Pontiac	City	192	9,252	R	12	4	(265)	Req	35	50
St. Joseph's Mercy Hospital [3]	Pontiac	Church	257	9,845	R	12	6	No	Req	32	175
Saginaw General Hospital [6]	Saginaw	NPAssn	266	10,768	R	12	4	(242)	Req	67	60
St. Mary's Hospital [3]	Saginaw	Church	172	7,450	R	12	4	No	Req	34	200
MINNESOTA											
St. Luke's Hospital [6]	Duluth	NPAssn	276	12,702	R-S	12	13	(122)	Req	77	25
St. Mary's Hospital [6]	Duluth	Church	285	10,476	R-S	12	12	(204)	Req	66	25
Abbott Hospital [6]	Minneapolis	Church	120	6,208	R	12	4	(265)	None	51	100
Asbury Hospital [6]	Minneapolis	Church	159	5,755	R	12	5	(143)	None	49	100
Lutheran Deaconess Home and Hospital [6]	Minneapolis	Church	100	5,551	M	12	3	No	None	44	50
Minneapolis General Hospital [6]-X40	Minneapolis	City	574	9,005	R	12-24	36	No	Req	36	50
Northwestern Hospital [6]	Minneapolis	NPAssn	260	10,537	R-S	12	12	(206)	None	20	50
St. Barnabas Hospital [6]	Minneapolis	NPAssn	200	9,481	R	12	2	No	Req	72	100
St. Mary's Hospital [6]	Minneapolis	Church	235	12,012	R	12	10	(297)	None	46	75
Swedish Hospital [6]	Minneapolis	NPAssn	420	14,336	R	12	8	No	None	50	75
University of Minnesota Hospitals [6]-X40	Minneapolis	State	450	10,586	S	12	30	No	Req	81	15
Ancker Hospital [6]-x40	St. Paul	Cy'o	650	7,957	R	12	24	No	Req	64	30
Bethesda Hospital [3]	St. Paul	Church	162	7,358	R	12	5	(144)	Req	30	100
Charles T. Miller Hospital [6]	St. Paul	NPAssn	275	8,959	R	12	10	(145)	Req	43	50
St. Joseph's Hospital [6]	St. Paul	Church	256	9,917	R	12	10	(208)	Req	45	85
MISSISSIPPI											
Mississippi Baptist Hospital [6]	Jackson	Church	255	13,217	R	12	12	(251)	None	21	50
Mercy Hospital-Street Memorial [6]	Vicksburg	Church	125	3,930	R	12	4	No	None	39	50
MISSOURI											
St. Louis County Hospital [6]	Clayton	County	216	5,668	R	12	8	No	Req	30	50
Kansas City General Hospital No. 1 [6]-x39	Kansas City	City	550	10,315	R	12	36	No	Req	49	25
Kansas City General Hospital No. 2 [6]	Kansas City	City	300	4,349	R	12	12	(164)	Req	41	25
Menorah Hospital [6]	Kansas City	NPAssn	160	6,040	R	12	5	No	None	50	100
Research Hospital [6]	Kansas City	NPAssn	211	7,086	R	12	8	No	Req	51	50
St. Joseph Hospital [6]	Kansas City	Church	321	12,375	R	12	7	No	Req	50	100
St. Luke's Hospital [6]	Kansas City	Church	375	11,307	R	12	8	No	None	76	50
St. Mary's Hospital [6]	Kansas City	Church	170	6,494	R	12	5	No	None	56	75
Trinity Lutheran Hospital	Kansas City	Church	150	5,196	R	12	..	...	None	53	100
Missouri Methodist Hospital [6]	St. Joseph	Church	300	6,626	R	12	4	No	Req	29	150
St. Joseph's Hospital [3]	St. Joseph	Church	148	5,288	R	12	2	No	None	21	125
Barnes Hospital [6] [3]-X42	St. Louis	NPAssn	583	16,827	S	12	30	(224)	Req	74	10
Christian Hospital	St. Louis	NPAssn	125	5,954	M	12	2	No	None	42	75
De Paul Hospital [6]	St. Louis	Church	300	8,951	R	12	9	No	Req	29	50
Evangelical Deaconess Hospital [3]	St. Louis	Church	250	9,047	R	12	8	No	Req	41	75
Homer G. Phillips Hospital [6] [3]-x42-X50	St. Louis	City	604	13,977	R	12	36	(121)	Req	26	75
Jewish Hospital [6]	St. Louis	NPAssn	250	8,788	R	12	14	No	Req	21	85
Lutheran Hospital	St. Louis	Church	165	5,852	R	12	6	No	None	36	100

Abbreviations and other references will be found on pages 1150 and 1160.

Name of Hospital	Location	Control	Bed Capacity	Total Patients Admitted	Type of Internship	Length of Service in Months	Internships Offered	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month
MISSOURI—Continued											
Missouri Baptist Hospital [o1]	St. Louis	Church	450	13,242	R	12	10	No	None	20	85
St. Anthony's Hospital [o1-z41]	St. Louis	Church	250	8,088	R	12	6	Req	Req	44	75
St. John's Hospital [o-z41]	St. Louis	Church	346	9,965	R	12	12	(340)	Req	41	50
St. Louis City Hospital [o1-2-X41-z42]	St. Louis	City	1,069	17,673	R-S	12	56	No	Req	53	75
St. Luke's Hospital [o1]	St. Louis	Church	184	5,808	R	12	6	No	Req	47	50
St. Mary's Group of Hospitals [o1-2-X41]	St. Louis	Church	370	20,655	R	12	21	No	Req	46	15
St. Mary's Infirmary [o-z41]	St. Louis	Church	146	3,709	R	12	4	No	None	28	25
MONTANA											
St. James Hospital [o]	Butte	Church	100	4,941	R	12	3	No	Req	34	125
Montana Deaconess Hospital [o]	Great Falls	Church	100	5,955	R	12	6	No	Req	..	50
NEBRASKA											
Bryan Memorial Hospital	Lincoln	Church	130	4,789	R	12	4	...	....	56	100
Lincoln General Hospital [o1-2]	Lincoln	NPAssn	183	6,430	R	12	6	No	Req	39	...
St. Elizabeth Hospital [o1-2-z42]	Lincoln	Church	220	7,661	R	12	4	No	None	29	100
Bishop Clarkson Memorial Hospital [o1-X44]	Omaha	Church	167	6,149	R	12	4	No	Req	57	50
Creighton Memorial St. Joseph's Hospital [o1-X43]	Omaha	Church	450	13,128	R	12	18	(225)	Req	34	50
Immanuel Deaconess Institute X44	Omaha	Church	123	4,772	R	12	4	No	None	50	50
Nebraska Methodist Hospital [o1-X44]	Omaha	Church	167	6,124	R	12	6	No	Req	51	50
St. Catherine's Hospital [-X43]	Omaha	Church	165	6,195	R	12	6	(146)	None	31	25
University of Nebraska Hospital [o1-2-X44]	Omaha	State	242	3,553	R	12	12	No	Req	37	40
NEW HAMPSHIRE											
Mary Hitchcock Memorial Hospital [o1]	Hanover	NPAssn	207	5,650	R	12	11	No	None	74	8.33
NEW JERSEY											
Atlantic City Hospital [o1]	Atlantic City	NPAssn	258	8,576	R	12	12	(226)	....	38	50
Bayonne Hospital and Dispensary [o1]	Bayonne	NPAssn	250	7,575	R	12	5	No	Req	28	125
Cooper Hospital [o1-z32-34]	Camden	NPAssn	340	11,476	R	12	12	No	Req	66	50
West Jersey Hospital [o1]	Camden	NPAssn	270	8,983	R	12	8	(230)	Req	60	100
East Orange General Hospital [1]	East Orange	NPAssn	119	4,057	R	12	4	(136)	Req	35	50
Elizabeth General Hospital and Dispensary [1]	Elizabeth	NPAssn	202	6,673	R	12	6	No	Req	19	100
St. Elizabeth Hospital [1]	Elizabeth	Church	220	7,208	R	12	6	No	Req	18	100
Englewood Hospital [o1]	Englewood	NPAssn	190	6,518	R	12	6	No	Req	34	90
Hackensack Hospital [o1]	Hackensack	NPAssn	250	11,060	R	12	10	No	Req	36	50
Christ Hospital [1]	Jersey City	Church	221	6,063	R	12	12	No	Req	63	100
Jersey City Hospital [o1-2]	Jersey City	City	1,600	24,331	R	12-24	60	(165)	Req	21	25
Monmouth Memorial Hospital [o1-2]	Long Branch	NPAssn	231	7,645	M	12	10	No	Req	36	100
Mountainside Hospital [o1]	Montclair	NPAssn	100	3,901	R	12-24	6	No	Req	31	84.16
All Souls Hospital	Morristown	Church	121	3,559	R	12	3	No	Req	33	100
Morristown Memorial Hospital [1]	Morristown	NPAssn	122	3,709	R	12	4	No	Req	22	110
Pitkin Memorial Hospital [o1]	Neptune	NPAssn	234	7,227	R	12	8	No	Req	27	50
Hospital of St. Barnabas and for Women and Children [o1]	Newark	Church	211	7,661	R	12	8	No	Req	50	50
Newark Beth Israel Hospital [o1-2]	Newark	NPAssn	345	11,501	R	12	12	No	Req	48	25
Newark City Hospital [o1-2]	Newark	City	700	12,339	R	12	11	No	None	73	30
St. Michael's Hospital [o]	Newark	Church	446	11,487	R	12	6	No	Req	36	75
St. Peter's General Hospital [1]	New Brunswick	Church	180	7,706	R	12	5	No	Req	62	100
Orange Memorial Hospital [o1]	Orange	NPAssn	200	9,543	R	12	6	No	Req	25	25
Passaic General Hospital [1]	Passaic	NPAssn	247	7,270	R	12	6	No	Req	50	75
St. Mary Hospital [1]	Passaic	Church	190	6,373	..	..	..	....	....	..	..
Nathan and Miriam Barnert Memorial Hospital [1]	Paterson	NPAssn	121	3,561	R	12	6	No	Req	45	75
Paterson General Hospital [o1]	Paterson	NPAssn	372	9,698	R	12	8	No	Req	43	50
St. Joseph Hospital [o1]	Paterson	Church	365	8,205	R	12	10	No	Req	21	100
Perth Amboy General Hospital [1]	Perth Amboy	NPAssn	229	7,788	R	12	5	No	None	16	75
Muhlenberg Hospital [o1]	Plainfield	NPAssn	270	9,366	R	12	8	No	Req	35	50
Overlook Hospital [1]	Summit	NPAssn	145	4,498	R	12	4	No	Req	39	50
Holy Name Hospital [1]	Teaneck	Church	182	5,739	R	12-24	6	No	Req	47	100
Mercer Hospital [o1]	Trenton	NPAssn	246	7,655	R	12	6	No	Req	38	100
St. Francis Hospital [o1]	Trenton	Church	300	8,170	R	12	8	No	Req	34	75
William McKinley Memorial Hospital	Tyrrell	NPAssn	114	5,445	R	12	4	....	Req	40	..
North Hudson Hospital [1]	Weehawken	NPAssn	108	3,022	R	12	6	(147)	Req	24	100
NEW YORK											
Albany Hospital [o1-2-X45]	Albany	NPAssn	541	15,296	R-S	12-24-36	31	No	Req	56	....
Memorial Hospital [1]	Albany	NPAssn	157	3,748	R	12-24	6	No	Req	44	125
St. Peter's Hospital [1]	Albany	Church	275	8,681	R	12	6	(227)	Req	39	75
Auburn City Hospital	Auburn	NPAssn	230	787	..	..	..	....	....	..	..
Binghamton City Hospital [o1-2]	Binghamton	City	444	10,537	R	12	8	No	Req	38	100
Beth El Hospital [o]	Brooklyn	NPAssn	242	8,246	R-S	12-24	12	No	Req	30	50
Brooklyn Hospital [o1-X46]	Brooklyn	NPAssn	322	9,023	R	12	9	No	Req	53	50
Coney Island Hospital [o1-2]	Brooklyn	City	378	5,929	R	12	20	No	Req	39	50
Cumberland Hospital [o1-2]	Brooklyn	City	284	7,959	R-S	12-24	27	No	Req	47	25.41
Greenpoint Hospital [o1-2-z46]	Brooklyn	City	296	6,270	R-S	12	20	No	Req	33	50
Jewish Hospital [o1-2-X46]	Brooklyn	NPAssn	500	15,665	R-S	12	38	No	Req	30	15
Kings County Hospital [o1-2-X46]	Brooklyn	City	2,500	61,440	R-S	12-24	131	No	Req	23	25
Long Island College Hospital [o1-X46]	Brooklyn	NPAssn	364	10,925	R	12	19	(160)	Req	32	4.09
Maimonides Hospital [o1-X46]	Brooklyn	NPAssn	300	13,058	S	12	28	(228)	Req	40	25
Methodist Hospital [o1-z46]	Brooklyn	Church	456	9,781	R-M	24	10	No	Req	51	..
Norwegian Lutheran Deaconesses' Home and Hospital [o]	Brooklyn	Church	210	7,302	R	12	6	No	Req	53	50
St. Catherine's Hospital [o]	Brooklyn	Church	267	7,424	R-S	24	14	No	Req	37	85
St. John's Hospital [o]	Brooklyn	Church	220	4,402	R-S	12	9	No	Req	31	35
St. Mary's Hospital [o]	Brooklyn	Church	227	6,192	R-S	24	10	No	Req	37	45
St. Peter's Hospital	Brooklyn	Church	170	3,652	R	12	6	No	Req	23	100
Unity Hospital [o]	Brooklyn	NPAssn	220	6,516	R	12	6	No	Req	22	100
Wyckoff Heights Hospital [o]	Brooklyn	NPAssn	160	5,708	R	15	4	No	Req	39	50
Buffalo General Hospital [o1-2-X47]	Buffalo	NPAssn	440	11,530	S	12	18	(344)	Req	46	..
Deaconess Hospital [o]	Buffalo	NPAssn	277	9,491	R	12	8	No	Req	39	85
Edward J. Meyer Memorial Hospital [o1-2-X47]	Buffalo	County	650	19,009	R	12	24	(360)	Req	42	100
Mercy Hospital [o]	Buffalo	Church	300	8,431	R	12	10	No	Req	22	100
Millard Fillmore Hospital [o1-2-X47]	Buffalo	NPAssn	473	14,106	R	12	17	No	Req	49	25
Sisters of Charity Hospital [o]	Buffalo	Church	370	11,733	R	12	10	No	Req	25	75
Mary Imogene Bassett Hospital [o1-z45-X48]	Cooperstown	NPAssn	75	2,715	R-M-S	12-24	9	No	Req	60	75
Arnot-Ogden Memorial Hospital	Elmira	NPAssn	197	7,047	R	12	8	(124)	None	38	75
St. Joseph's Hospital [1]	Elmira	Church	253	6,735	R	12	4	No	None	36	150

Abbreviations and other references will be found on pages 1150 and 1160.

Name of Hospital	Location	Control	Bed Capacity	Total Patients Admitted	Type of Internship	Length of Service in Months	Internships Offered	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month
NEW YORK—Continued											
Ideal Hospital [1]	Endicott	City	96	3,167	R	12	2	No	None	26	125
Flushing Hospital and Dispensary ◆[1-3]	Flushing	NPAssn	282	10,172	R	12-24	9	No	Req	38	100
North Country Community Hospital	Glen Cove	NPAssn	105	3,881	R	12	4	No	Req	49	100
Glens Falls Hospital [1]	Glens Falls	NPAssn	250	7,482	R	12	6	No	None	18	125
Meadowbrook Hospital ◆[1-3]	Hempstead	County	250	6,825	R	12-24	12	No	Req	48	50
Jamaica Hospital ◆[1]	Jamaica	NPAssn	185	6,274	R	12	8	No	Req	21	75
Mary Immaculate Hospital ◆[1-3]	Jamaica	Church	273	8,880	R-S	12	9	No	Req	25	65
Queens General Hospital ◆[1-3]-X50	Jamaica	City	705	14,868	R-S	24	30	No	Req	47	25
Charles S. Wilson Memorial Hospital ◆[1]	Johnson City	NPAssn	380	9,389	R	12	9	No	Req	46	100
Our Lady of Victory Hospital [1]	Lackawanna	Church	175	5,430	R	12-24	5	No	Req	13	150
St. John's Long Island City Hospital ◆[1-3]	Long Island City	Church	230	6,246	R	12	14	No	Req	46	50
Nassau Hospital ◆[1]	Mineola	NPAssn	227	8,509	R	12	4	No	None	30	50
Mount Vernon Hospital ◆[1]	Mount Vernon	NPAssn	219	7,885	R	12	6	No	Req	46	75
St. Luke's Hospital [1-3]	Newburgh	NPAssn	186	6,002	R	12	5	No	Req	21	100
New Rochelle Hospital ◆[1]	New Rochelle	NPAssn	310	9,213	R	12	10	No	Req	40	100
Bellevue Hospital X-48-49-51	New York City	City	...	......	..	..	..	...	....	..	..
Division I—Columbia University ◆[1]	....	....	105	2,454	M	12-24	12	No	Req	..	25
Division II—Cornell University ◆[1]	....	....	...	......	M-S	12	15	No	Req	..	45
Division III—New York University ◆[1]	....	....	...	......	..	..	..	...	....	..	..
Division IV—New York University ◆[1]	....	....	...	......	..	..	..	...	....	..	..
Beth David Hospital ◆x-50	New York City	NPAssn	167	4,542	R	12	14	No	None	24	50
Beth Israel Hospital ◆[1-3]	New York City	NPAssn	328	9,208	R	12	12	No	None	48	25
Bronx Hospital ◆[1-3]	New York City	NPAssn	329	8,502	R-S	12	16	No	Req	32	35
Columbus Hospital	New York City	Church	280	5,554	R	12	12	No	None	11	75
Flower and Fifth Avenue Hospitals ◆[1-3]-X50	New York City	NPAssn	337	9,036	S	12	13	No	Req	32	..
Fordham Hospital ◆[1]	New York City	City	446	11,909	R	12	24	...	....	23	50
French Hospital ◆[1]	New York City	NPAssn	251	6,450	R-S	24	9	(167)	Req	29	20
Goldwater Memorial Hospital ◆[1-3]-X48-x51	New York City	City	1,300	1,745	M	12	9	No	Req	37	30
Gouverneur Hospital ◆[1-3]	New York City	City	172	3,387	R	12	6	(229)	Req	22	50
Harlem Hospital ◆[1-3]	New York City	City	846	21,801	R	12	58	No	None	22	35.42
Hospital for Joint Diseases ◆[1-3]	New York City	NPAssn	302	5,828	R	12-24	12	(168)	Req	49	25
Jewish Memorial Hospital ◆[1]	New York City	NPAssn	185	5,743	R	12	12	No	Req	42	50
Knickerbocker Hospital ◆[1]	New York City	NPAssn	191	4,418	M	12	6	No	Req	24	50
Lebanon Hospital ◆[1]	New York City	NPAssn	207	6,861	R	12-24	12	No	None	42	50
Lenox Hill Hospital ◆[1-3]-x51	New York City	NPAssn	530	12,615	R	24	24	No	Req	41	..
Lincoln Hospital ◆[1-3]	New York City	City	401	12,143	R	12	15	No	Req	28	35
Metropolitan Hospital ◆[1-3]-X50	New York City	City	1,080	13,156	R	24	38	No	Req	27	30
Misericordia Hospital ◆	New York City	Church	181	5,312	R	12	7	No	Req	31	50
Montefiore Hospital for Chronic Diseases ◆[1-3]-X48	New York City	NPAssn	504	4,367	M-S	12	14	No	Req	46	25
Morrisania City Hospital ◆[1-3]-X50	New York City	City	465	12,142	R	12	29	No	Req	23	30
Mother Cabrini Memorial Hospital [1]	New York City	Church	175	3,548	M	18-24	8	No	Req	28	50
Mount Sinai Hospital ◆[1-3]-x48	New York City	NPAssn	785	16,050	R	12	24	No	Req	50	25
New York City Hospital ◆[1-3]-X50	New York City	City	823	12,247	R-S	12-24	30	No	Req	34	35.40
New York Hospital ◆[1-3]-X48	New York City	NPAssn	1,074	20,504	S	12	36	No	Req	72	..
New York Infirmary ◆[1-3]	New York City	NPAssn	121	3,280	R	12	6	No	Req	51	30
New York Polyclinic Medical School and Hospital ◆[2]	New York City	NPAssn	374	9,500	R	12	8	No	Req	41	25
Presbyterian Hospital ◆[1-3]	New York City	NPAssn	1,424	30,220	M-S	18-24	28	No	Req	50	..
Roosevelt Hospital ◆[1]-X48	New York City	NPAssn	410	8,748	M	12-24	12	No	Req	44	45
St. Clare's Hospital ◆[1]	New York City	Church	440	10,138	R	12	13	No	Req	65	10
St. Francis Hospital ◆[1]	New York City	Church	350	7,342	R	12	8	No	Req	17	50
St. Luke's Hospital ◆[1-3]-X48	New York City	NPAssn	520	9,830	M	12	9	No	Req	72	..
St. Vincent's Hospital ◆[1]-x51	New York City	Church	440	11,323	R	12	20	No	Req	44	..
Sydenham Hospital ◆[1-3]	New York City	NPAssn	208	5,074	R	12	12	No	Req	45	50
University Hospital ◆[1-3]	New York City	NPAssn	405	9,000	M	12	6	No	Req	41	50
Mount St. Mary's Hospital [1]	Niagara Falls	Church	234	7,021	R	12	2	...	....	30	..
United Hospital ◆[1]	Port Chester	NPAssn	182	6,136	R	12	6	No	Req	34	100
St. Francis Hospital [1]	Poughkeepsie	Church	107	3,311	M	12	2	No	None	32	200
Vassar Brothers Hospital	Poughkeepsie	NPAssn	207	6,884	R	12	5	No	Req	34	75
Genesee Hospital ◆[1]-x52	Rochester	NPAssn	228	7,877	S	12	8	No	Req	58	15
Highland Hospital ◆[1]	Rochester	NPAssn	200	7,080	R	12	9	No	Req	43	45
Rochester General Hospital ◆[1]	Rochester	NPAssn	324	12,442	R	12	22	(211)	Req	65	40
St. Mary's Hospital ◆[1]	Rochester	Church	325	13,088	R	12	6	No	Req	41	50
Strong Memorial—Rochester Municipal Hospitals ◆[1]-X52	Rochester	NPAssn	747	16,010	R-M-S	12-24	43	No	Req	71	15
Ellis Hospital ◆[1]-X48	Schenectady	NPAssn	400	15,567	R	12	12	No	Req	44	60
St. Vincent's Hospital ◆	Staten Island	Church	211	7,692	R	12	8	No	Req	24	100
Crouse Irving Hospital ◆[1]-x53	Syracuse	NPAssn	215	7,554	R	12	4	No	None	29	125
General Hospital ◆[1]-x53	Syracuse	NPAssn	129	4,981	M	12	4	No	Req	35	25
St. Joseph's Hospital [1]-x53	Syracuse	Church	202	7,145	R	12-24	6	No	Req	25	35
Syracuse University Medical Center Hospitals											
Hospital of the Good Shepherd ◆[1]-X53	Syracuse	NPAssn	190	4,586	R	12	10	(230)	None	44	100
Syracuse Memorial Hospital ◆[1]-X53	Syracuse	NPAssn	283	9,195	R	12	7	No	None	51	100
St. Mary's Hospital [1]	Troy	Church	244	6,350	R	12	6	No	Req	26	75
Samaritan Hospital ◆[1]	Troy	NPAssn	167	5,306	R	12	6	No	Req	33	75
Grasslands Hospital [1-3]	Valhalla	County	800	4,480	R	12	20	No	Req	55	25
St. Agnes Hospital	White Plains	Church	138	3,702	R	12	4	No	Req	41	100
White Plains Hospital ◆[1]	White Plains	NPAssn	180	6,910	R	12	3	No	Req	60	50
St. John's Riverside Hospital [1]	Yonkers	NPAssn	188	5,869	R	12	7	No	Req	29	100
St. Joseph's Hospital [1]	Yonkers	Church	183	3,490	R	12	6	No	Req	27	100
Yonkers General Hospital [1]	Yonkers	NPAssn	143	6,112	R	12	5	No	Req	19	100
NORTH CAROLINA											
Charlotte Memorial Hospital ◆[1]	Charlotte	NPAssn	370	11,000	R	12	10	No	Req	65	40
Duke Hospital ◆[1]-X54	Durham	NPAssn	549	13,952	M-S	12	43	(169)	Req	60	..
Lincoln Hospital [1]	Durham	NPAssn	99	2,306	R	12	4	(231)	Req	49	50
Watts Hospital ◆[1]	Durham	NPAssn	200	8,006	R-S	12	16	No	Req	50	25
Rex Hospital ◆[1]	Raleigh	NPAssn	205	11,122	R	12	12	No	Req	27	105
St. Agnes Hospital [1]	Raleigh	Church	114	3,061	R	12	4	No	Req	28	75
James Walker Memorial Hospital ◆[1]	Wilmington	NPAssn	300	9,830	R	12-24	8	No	Req	34	100
Kate Bitting Reynolds Memorial Hospital ◆[1]	Winston-Salem	City	205	6,398	R	12	8	(170)	Req	21	100
North Carolina Baptist Hospital ◆[1-3]-X55	Winston-Salem	Church	250	8,370	S	12	17	No	Req	67	..
NORTH DAKOTA											
St. John's Hospital [1]	Fargo	Church	180	6,634	R	12	6	No	Req	34	75
St. Luke's Hospital ◆[1]	Fargo	Church	127	5,470	R	12	4	No	Req	52	50
Grand Forks Deaconess Hospital [1]	Grand Forks	NPAssn	140	5,242	R	12	6	No	Req	42	100
Trinity Hospital ◆	Minot	Church	188	6,154	R	12	4	No	....	65	50

Abbreviations and other references will be found on pages 1130 and 1160.

Name of Hospital	Location	Control	Bed Capacity	Total Patients Admitted	Type of Internship	Length of Service in Months	Internships Offered	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month
OHIO											
City Hospital ◆	Akron	NPAssn	419	14,858	R	12	15	(213)	Req	42	80
Peoples Hospital ◆¹	Akron	NPAssn	210	9,981	R	12	6	(171)	Req	51	80
St. Thomas Hospital ◆	Akron	Church	295	11,884	R	12	6	No	Req	45	75
Aultman Hospital ◆¹	Canton	NPAssn	301	10,303	R	12	10	No	Req	46	80
Mercy Hospital ◆¹	Canton	Church	235	10,667	R	12	8	No	Req	36	75
Bethesda Hospital	Cincinnati	Church	218	8,689	R	12	8	(172)	Req	46	75
Christ Hospital ◆	Cincinnati	Church	372	11,289	R	12	16	(172)	Req	43	80
Cincinnati General Hospital ◆¹·²-X50	Cincinnati	City	850	15,649	R-S	12	40	(267)	Req	54	..
Deaconess Hospital ◆¹	Cincinnati	Church	168	5,112	R	12	5	(178)	Req	36	100
Good Samaritan Hospital ◆¹	Cincinnati	Church	556	16,782	R	12	18	No	Req	48	80
Jewish Hospital ◆¹	Cincinnati	NPAssn	304	12,763	R	12	10	(272)	No	65	80
St. Mary's Hospital ◆¹	Cincinnati	Church	200	5,001	R	12	5	No	Req	31	75
City Hospital ◆¹·²-X57	Cleveland	City	1,044	11,457	R	12	24	No	Req	41	80
Evangelical Deaconess Hospital ¹	Cleveland	Church	149	6,615	R	12	3	No	None	18	75
Fairview Park Hospital	Cleveland	Church	150	9,102	R	12	6	...	Req	27	75
Glenville Hospital ¹	Cleveland	NPAssn	120	4,474	R	12	4	No	Req	22	75
Lutheran Hospital ◆¹	Cleveland	Church	128	5,191	R	12	8	No	None	43	80
Mount Sinai Hospital ◆¹·²-x57	Cleveland	NPAssn	251	11,441	R-S	24	22	(233)	Req	51	80
St. Alexis Hospital ◆¹	Cleveland	Church	234	10,292	R	12	6	No	Req	33	80
St. John's Hospital ◆¹	Cleveland	Church	220	8,942	R	12	8	No	None	46	80
St. Luke's Hospital ◆¹·²	Cleveland	Church	362	14,622	R	12	20	No	Req	42	80
St. Vincent's Charity Hospital ◆¹·²-x57	Cleveland	Church	296	7,729	R	12	14	(214)	Req	32	80
University Hospitals ◆¹·²-X57	Cleveland	NPAssn	797	22,380	S	12-24	20	No	Req	58	..
Doctors Hospital ◆	Cleveland Heights	NPAssn	165	6,635	R	12	12	...	Req	44	100
Grant Hospital ◆¹	Columbus	NPAssn	290	10,628	R	12	8	No	None	34	..
Mount Carmel Hospital ◆¹	Columbus	Church	262	10,760	R	12	8	(174)	None	41	80
Ohio State University Hospital ◆¹·²-X50	Columbus	State	279	8,847	R-S	24	23	(175)	Req	78	0
White Cross Hospital ◆¹	Columbus	Church	350	11,302	R	12	10	No	None	46	80
Miami Valley Hospital ◆¹	Dayton	NPAssn	451	15,435	R	12	12	No	Req	45	80
St. Elizabeth Hospital ◆¹	Dayton	Church	325	12,527	R	12	7	No	Req	39	125
Huron Road Hospital ◆¹	East Cleveland	NPAssn	304	10,643	R	12	15	No	Req	49	80
Mercy Hospital ◆¹	Hamilton	Church	300	8,769	R	12	6	No	Req	35	100
Lakewood Hospital ◆¹	Lakewood	City	129	5,942	R	12	4	No	Req	43	75
Lima Memorial Hospital	Lima	NPAssn	220	6,350	R	12	6	No	None	22	100
St. Rita's Hospital ◆¹	Lima	Church	200	11,372	R	12	6	No	Req	38	100
Springfield City Hospital ¹	Springfield	City	300	10,915	R	12	7	No	Req	46	100
Flower Hospital ¹	Toledo	Church	170	5,643	R	12	5	(149)	None	30	150
Maumee Valley Hospital ◆¹	Toledo	County	202	4,011	R	12	8	No	Req	52	75
Mercy Hospital ◆	Toledo	Church	284	12,191	R	12	10	No	Req	45	100
Riverside Hospital	Toledo	NPAssn	154	5,804	R	12	4	...	...	31	100
St. Vincent's Hospital ◆¹	Toledo	Church	310	10,900	R	12	10	No	Req	39	100
Toledo Hospital ◆¹	Toledo	NPAssn	300	9,466	R	12	10	No	Req	57	75
St. Elizabeths Hospital ◆¹	Youngstown	NPAssn	330	12,803	R	12	10	No	Req	49	100
Youngstown Hospital ◆¹ ²	Youngstown	NPAssn	627	20,250	R	12	15	No	Req	55	25
OKLAHOMA											
Mercy Hospital x59	Oklahoma City	Church	150	6,132	R	12	0	(355)	None	24	75
St. Anthony Hospital ◆-X59	Oklahoma City	Church	375	12,700	R	12	10	No	Req	33	80
University Hospitals ◆¹·²-X59	Oklahoma City	State	450	7,106	R	12	13	No	Req	40	85
Wesley Hospital ◆¹-x59	Oklahoma City	Part	200	8,673	R	12	8	No	Req	47	75
Hillcrest Memorial Hospital ◆¹	Tulsa	NPAssn	250	11,261	R	12	10	No	Req	34	80
St. John's Hospital ◆¹	Tulsa	Church	425	16,081	R	12	12	No	None	41	100
OREGON											
Emanuel Hospital ◆¹-x60	Portland	Church	350	13,667	R	12	16	(176)	Req	56	80
Good Samaritan Hospital ◆¹-x60	Portland	Church	430	14,044	R	12	14	No	None	57	80
Portland Sanitarium and Hospital ◆¹	Portland	Church	144	6,602	R	12	6	No	None	37	80
Providence Hospital ◆¹-x60	Portland	Church	229	7,956	R	12	6	(150)	Req	55	80
St. Vincent's Hospital ◆¹-x60	Portland	Church	370	10,949	R	12	12	(177)	Req	41	80
University of Oregon Medical School Hospitals and Clinics ◆¹·²-X60	Portland	State	418	7,202	R	12	16	No	Req	75	80
PENNSYLVANIA											
Abington Memorial Hospital ◆¹	Abington	NPAssn	304	8,538	R	12	10	No	Req	35	..
Allentown Hospital ◆¹	Allentown	NPAssn	362	12,085	R	12	10	No	Req	52	75
Sacred Heart Hospital ◆¹	Allentown	Church	376	8,169	R	12	8	No	Req	35	75
Altoona Hospital ¹	Altoona	NPAssn	220	8,231	R	12	7	No	Req	21	100
St. Luke's Hospital ◆¹	Bethlehem	NPAssn	351	10,459	R	12	12	No	Req	44	75
Bryn Mawr Hospital ◆	Bryn Mawr	NPAssn	285	8,190	R	12	10	No	Req	56	..
Chester Hospital ¹	Chester	NPAssn	235	7,192	R	12	8	No	Op	29	75
George F. Geisinger Memorial Hospital and Clinic ◆¹	Danville	NPAssn	205	8,674	R	12	10	No	Req	46	80
Fitzgerald-Mercy Hospital x84	Darby	Church	200	7,315	R	12	8	No	Req	54	80
Easton Hospital ◆¹	Easton	NPAssn	177	6,142	R	12	6	No	Req	38	75
Hamot Hospital ◆¹	Erie	NPAssn	250	9,565	R	12	8	No	Req	57	75
St. Vincent's Hospital ◆	Erie	NPAssn	250	10,915	R	12	8	No	Req	35	50
Westmoreland Hospital ◆¹	Greensburg	NPAssn	150	7,232	R	12	6	No	None	36	100
Harrisburg Hospital ◆¹-X61	Harrisburg	NPAssn	312	9,584	R	12	12	No	Req	48	100
Harrisburg Polyclinic Hospital ◆¹	Harrisburg	NPAssn	258	8,115	R	12	8	No	Req	42	150
Conemaugh Valley Memorial ¹	Johnstown	NPAssn	246	12,570	R	12	12	No	Req	39	100
Nesbitt Memorial Hospital ¹	Kingston	NPAssn	200	6,436	R	12	3	No	Req	21	100
Lancaster General Hospital ¹	Lancaster	NPAssn	248	9,255	R	12	10	No	Req	46	75
St. Joseph's Hospital ◆¹	Lancaster	Church	232	6,815	R	12	6	No	Req	32	100
McKeesport Hospital ¹	McKeesport	NPAssn	275	8,785	R	12	7	No	Req	36	120
Montgomery Hospital ¹	Norristown	NPAssn	198	6,228	R	12	8	No	Req	29	100
Doctor's Hospital ◆¹	Philadelphia	NPAssn	175	7,109	R	12	4	No	Req	31	100
Episcopal Hospital ◆¹·²-x62-X63-x64	Philadelphia	Church	465	9,046	R	12	16	No	Req	57	..
Frankford Hospital ◆¹	Philadelphia	NPAssn	142	5,651	R	12	7	No	Req	48	150
Germantown Dispensary and Hospital ◆¹-x62	Philadelphia	NPAssn	330	8,831	R	12	12	No	Req	57	..
Graduate Hospital of the University of Pennsylvania ◆¹	Philadelphia	NPAssn	364	8,322	R	12	12	(151)	Req	60	..
Hahnemann Hospital ◆¹-X61	Philadelphia	NPAssn	350	14,087	R	24	24	No	Req	70	..
Hospital of the University of Pennsylvania ◆¹·²-X64	Philadelphia	NPAssn	613	20,337	R	12	20	No	Op	84	..
Hospital of the Woman's Medical College ◆¹-X65	Philadelphia	NPAssn	171	4,854	R	12	6	No	Req	46	..
Jefferson Medical College Hospital ◆¹-X62	Philadelphia	NPAssn	722	21,141	R	24	34	No	Req	55	..
Jewish Hospital ◆¹·²-x61-X65	Philadelphia	NPAssn	467	10,150	R	12	18	(261)	None	53	..
Lankenau Hospital ◆¹	Philadelphia	NPAssn	300	6,211	R	12	10	No	Req	69	..

Abbreviations and other references will be found on pages 1150 and 1160.

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Name of Hospital	Location	Control	Bed Capacity	Total Patients Admitted	Type of Internship	Length of Service in Months	Internships Offered	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month
PENNSYLVANIA—Continued											
Memorial Hospital [1]	Philadelphia	NPAssn	117	3,510	R	12	4	No	Req	34	150
Mercy-Douglass Hospital [x1]	Philadelphia	NPAssn	100	3,161	R	12	5	No	Req	31	15
Methodist Episcopal Hospital [1-x82]	Philadelphia	Church	282	4,493	R	12	8	No	Req	45	50
Misericordia Hospital [1-x85]	Philadelphia	Church	220	7,310	R	12	7	No	Req	47	50
Mount Sinai Hospital [1-2-X81-x82-x85]	Philadelphia	NPAssn	250	6,776	R	12	12	No	Req	65	..
Nazareth Hospital [x1]	Philadelphia	Church	150	6,468	R	12	6	No	Req	30	75
Pennsylvania Hospital [x1-X82-X84]	Philadelphia	NPAssn	483	10,884	R	24	18	(234)	Req	71	..
Philadelphia General Hospital [x1-X81-82-83-84-85]	Philadelphia	City	2,500	39,397	R	24	96	(332)	Req	60	..
Presbyterian Hospital [x1-x84]	Philadelphia	Church	540	9,657	R	12	10	No	Req	70	..
St. Joseph's Hospital [1-x82]	Philadelphia	Church	300	4,821	R	12	6	No	Req	45	150
St. Luke's and Childrens Medical Center [x1-x81-82]	Philadelphia	NPAssn	285	7,003	R	12	9	No	Req	38	75
St. Mary's Hospital	Philadelphia	Church	220	5,816	R	12	6	No	Req	46	150
Temple University Hospital [x1-X83]	Philadelphia	NPAssn	558	10,466	R	12	10	(152)	None	63	..
Woman's Hospital [x1-X85]	Philadelphia	NPAssn	137	5,284	R	12	6	No	Req	62	50
Women's Homeopathic Hospital [x1]	Philadelphia	NPAssn	179	4,500	R	12	6	No	Req	18	175
Allegheny General Hospital [x1-x86]	Pittsburgh	NPAssn	554	12,183	R	12	16	No	Req	23	..
Mercy Hospital [x1-X86]	Pittsburgh	Church	667	14,567	R	12	24	(240)	Req	29	..
Montefiore Hospital [x1]	Pittsburgh	NPAssn	247	8,279	R	12	11	No	Req	48	25
Pittsburgh Hospital [x1]	Pittsburgh	NPAssn	225	6,436	R	12	6	No	Req	28	75
Presbyterian Hospital [x1-X86]	Pittsburgh	NPAssn	535	5,318	R	12	28	(215)	Req	38	..
St. Francis Hospital [x1-X86]	Pittsburgh	NPAssn	650	15,025	R	12	15	No	Req	22	150
St. John's General Hospital [1]	Pittsburgh	NPAssn	197	7,144	R	12	6	No	Req	23	100
St. Joseph's Hospital and Dispensary	Pittsburgh	Church	170	4,950	R	12	6	No	Req	51	100
St. Margaret Memorial Hospital [x1]	Pittsburgh	Church	122	3,697	R	12	4	No	Req	32	75
Shadyside Hospital [1]	Pittsburgh	NPAssn	304	8,497	R	12	10	No	None	24	100
South Side Hospital [1]	Pittsburgh	NPAssn	207	6,765	R	12	7	No	Req	20	100
Western Pennsylvania Hospital [x1]	Pittsburgh	NPAssn	549	13,816	R	12	18	No	Req	29	100
Community General Hospital [1]	Reading	NPAssn	123	4,057	R	12	4	No	Req	61	150
Reading Hospital [1]	Reading	NPAssn	384	10,487	R	12	10	No	Req	63	100
St. Joseph's Hospital [x1]	Reading	Church	200	6,156	R	12	6	No	Req	38	100
Rochester General Hospital [1]	Rochester	NPAssn	197	4,787	R	12	2	No	Req	19	50
Robert Packer Hospital [x]	Sayre	NPAssn	304	10,451	R	12	10	No	Req	67	..
Moses Taylor Hospital [1]	Scranton	NPAssn	139	2,487	R	12	3	(178)	Req	29	100
Scranton State Hospital [x]	Scranton	State	1,000	1,232	R	12	9	No	Req	34	175-150
Sewickley Valley Hospital [1]	Sewickley	NPAssn	187	5,071	R	12	7	No	Req	23	200
Uniontown Hospital [1]	Uniontown	NPAssn	215	9,247	R	12	6	No	Req	21	200
Washington Hospital [x1]	Washington	NPAssn	189	6,619	R	12	7	No	Req	22	150
Chester County Hospital [x]	West Chester	NPAssn	133	4,454	R	12	4	No	Req	46	100
Mercy Hospital [x]	Wilkes-Barre	Church	[illegible]	[illegible]	R	12	6	No	Req	..	50
Wilkes-Barre General Hospital	Wilkes-Barre	NPAssn	302	9,648	R	12	10	No	Req	25	50
Columbia Hospital [x]	Wilkinsburg	Church	171	6,020	R	12	5	No	Req	20	100
Williamsport Hospital [x]	Williamsport	NPAssn	200	8,731	R	12	8	No	Req	28	100
York Hospital [x]	York	NPAssn	227	10,178	R	12	8	No	Req	45	100
RHODE ISLAND											
Newport Hospital [1]	Newport	NPAssn	188	5,438	R	12	2	No	Req	31	300
Memorial Hospital [1]	Pawtucket	NPAssn	173	7,245	R	12	6	No	Req	40	50
Rhode Island Hospital [x]	Providence	NPAssn	500	14,924	R	24	12	No	Req	58	..
Roger Williams General Hospital [1]	Providence	NPAssn	162	5,900	R	12	6	No	Req	31	100
St. Joseph's Hospital	Providence	Church	310	8,013	R	24	13	(179)	Req	34	100
SOUTH CAROLINA											
Roper Hospital [x1-X87]	Charleston	NPAssn	450	12,627	R	12	21	No	Req	32	50
Columbia Hospital [x]	Columbia	County	444	11,091	R	12	12	No	Req	28	50
McLeod Infirmary [1]	Florence	NPAssn	250	7,455	R	12	6	(125)	Req	23	100
Greenville General Hospital [x]	Greenville	City	331	12,659	R	12	9	No	Req	24	75
Spartanburg General Hospital [1]	Spartanburg	County	256	11,632	R	12	12	No	Req	30	75
SOUTH DAKOTA											
McKennan Hospital [1]	Sioux Falls	Church	164	7,617	R	12	4	No	None	42	100
Sioux Valley Hospital [1]	Sioux Falls	NPAssn	170	10,562	R	12	8	No	None	36	100
Sacred Heart Hospital [1]	Yankton	Church	220	4,835	R	12	9	No	None	32	..
TENNESSEE											
Baroness Erlanger Hospital [x1-2]	Chattanooga	CyCo	469	14,613	R	12	18	(235)	Req	21	60
Fort Sanders Hospital [1]	Knoxville	NPAssn	250	7,450	R	12	4	No	None	29	200
Knoxville General Hospital [x]	Knoxville	City	285	8,770	R	12	10	No	Req	31	75
St. Mary's Memorial Hospital [1]	Knoxville	Church	250	7,112	R	12	10	..	..	27	75
Baptist Memorial Hospital [x]	Memphis	Church	500	19,665	R	12	24	No	Req	37	50
John Gaston Hospital [x1-X88]	Memphis	City	400	16,497	R-S	12	45	No	Req	46	35
Methodist Hospital [x]	Memphis	Church	267	12,650	R	12	12	(127)	Req	34	50
St. Joseph Hospital [x]	Memphis	Church	200	10,839	R	12	8	No	Req	34	50
George Hubbard Hospital [x1-X89]	Nashville	NPAssn	200	5,775	R	12	8	No	None	18	25
Mid-State Baptist Hospital [x]	Nashville	Church	115	5,254	R	12	6	(152)	Req	28	100
Nashville General Hospital [x1-x70]	Nashville	City	280	4,142	R-S	12	12	No	Req	39	37.50
St. Thomas Hospital [x]	Nashville	Church	223	12,000	S	12	10	(216)	None	44	100
Vanderbilt University Hospital [x1-X70]	Nashville	NPAssn	340	9,495	S	12	28	(248)	Req	54	..
TEXAS											
Brackenridge Hospital [1]	Austin	City	227	6,664	R	12	6	No	Req	42	50
Memorial Hospital [1]	Corpus Christi	CyCo	148	5,767	R	12	6	No	Req	26	50
Baylor University Hospital [x1-x71]	Dallas	Church	288	17,776	R-S	12	30	No	Req	34	37.50
Methodist Hospital [x1-x71]	Dallas	Church	308	10,731	R	12	6	No	Req	20	50
Parkland Hospital [x1-X71]	Dallas	CyCo	357	7,779	M-S	12	21	No	Req	60	10
St. Paul's Hospital [x1-x71]	Dallas	Church	310	12,839	R-S	12	16	No	Req	31	50
El Paso General Hospital	El Paso	CyCo	200	5,367	R	12	6	No	Req	32	37.50
City County Hospital [1-2]	Fort Worth	CyCo	168	4,653	R	12	8	No	Req	34	50
Harris Hospital [x]	Fort Worth	Church	208	13,217	R	12	16	No	Req	35	50
St. Joseph's Hospital	Fort Worth	Church	243	9,458	R	12	10	No	Req	22	100
University of Texas Medical Branch Hospitals [x1-X72]	Galveston	State	625	10,305	R	12	25	No	Req	61	25
Hermann Hospital [x1-X73]	Houston	NPAssn	600	10,812	R	12	16	No	Req	54	50
Jefferson Davis Hospital [x1-2-x73-X73]	Houston	CyCo	441	12,555	R	12	24	No	Req	37	25
Methodist Hospital [x1-x72-73]	Houston	Church	125	4,960	R	12	4	No	None	25	25
St. Joseph's Infirmary x73-73	Houston	Church	277	20,855	R	12	12	No	Req	40	50

Abbreviations and other references will be found on pages 1159 and 1160.

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Name of Hospital	Location	Control	Bed Capacity	Total Patients Admitted	Type of Internship	Length of Service in Months	Internships Offered	Affiliated Service	Outpatient Service	Autopsy Percentage	Stipend per Month
TEXAS—Continued											
Baptist Memorial Hospital [1]	San Antonio	Church	226	12,074	R	12	8	No	Req	24	75
Nix Memorial Hospital [1]	San Antonio	Corp	150	7,480	R	12	3	No	None	21	125
Robert B. Green Memorial Hospital [1-2]	San Antonio	County	170	1,327	R	12	12	No	Req	25	100
Santa Rosa Hospital [2]	San Antonio	Church	325	14,220	R	12	10	No	Req	30	75
Kings Daughters Hospital [1]	Temple	NPAssn	110	2,565	R	12	4	No	Req	21	100
Scott and White Hospital [2]	Temple	Corp	230	6,931	R	12	9	(230)	Req	45	75
Wichita Falls Clinic Hospital [2]	Wichita Falls	Part	102	5,192	R	12	3	No	Req	45	150
UTAH											
St. Benedict's Hospital [1-2]-X76	Ogden	Church	165	5,280	M	12	3	No	Req	26	75
Thomas D. Dee Memorial Hospital [2]-X76	Ogden	Church	281	8,222	R	12	8	No	Req	34	85
Dr. W. H. Groves Latter-Day Saints Hospital [2]-X76	Salt Lake City	Church	330	14,700	R	12	12	(154)	Req	37	90
Holy Cross Hospital [2]-X76	Salt Lake City	Church	100	7,202	R	12	6	No	None	45	90
St. Mark's Hospital [2]-X76	Salt Lake City	Church	214	7,849	R-S	12	9	No	Req	52	90
Salt Lake County General Hospital [2]-X76	Salt Lake City	County	211	5,902	R-M-S	12	14	No	Req	60	85
VERMONT											
Bishop DeGoesbriand Hospital [2-3]-X75	Burlington	Church	200	4,251	R	12	3	No	Req	54	50
Mary Fletcher Hospital [2]-X75	Burlington	NPAssn	195	6,063	R	12	6	No	Req	64	50
VIRGINIA											
Alexandria Hospital [2]	Alexandria	NPAssn	170	6,239	R	12	6	No	Req	39	75
Arlington Hospital	Arlington	NPAssn	...	...	..	..	..	..	....	..	..
University of Virginia Hospital [2]-X76	Charlottesville	State	400	14,573	R-M	12	26	(237)	Req	39	..
Riverside Hospital [1]	Newport News	NPAssn	190	6,731	R	12	6	(190)	Req	37	100
De Paul Hospital [2]	Norfolk	Church	250	8,539	R	12	6	No	Req	55	100
Norfolk General Hospital [2]	Norfolk	NPAssn	340	9,063	R	12	10	(250)	Req	27	100
Medical College of Virginia Hospital Division [2-3]-X77 (Memorial, Dooley and St. Philip Hospitals)	Richmond	State	751	17,205	R-M	12-24	34	(155)	Req	46	..
Stuart Circle Hospital [1]	Richmond	Corp	114	4,345	R	12	4	No	Req	45	100
Jefferson Hospital [2]	Roanoke	Corp	150	5,636	R	12	3	(156)	Req	27	30
Lewis Gale Hospital [2]	Roanoke	Corp	180	6,451	R	12	6	No	Req	36	75
Memorial and Crippled Childrens Hospital [1]	Roanoke	NPAssn	140	4,971	R	12	4	No	None	46	150
WASHINGTON											
Columbus Hospital [1]	Seattle	Church	185	4,252	R	12	5	(218)	None	49	50
Doctor's Hospital [2]	Seattle	NPAssn	200	8,557	R	12	6	No	None	49	50
King County Hospital Unit No. 1 (Harborview) [2]-X81	Seattle	County	575	11,750	R	12	23	No	Req	51	60
Providence Hospital [2]	Seattle	Church	527	12,382	R	12	11	(219)	Req	46	50
Swedish Hospital [2]	Seattle	NPAssn	320	13,499	R	12-24	15	(181)	Req	43	50
Virginia Mason Hospital [2]	Seattle	NPAssn	200	9,712	R	12	8	No	None	61	50
Deaconess Hospital [2]	Spokane	Church	213	8,976	R	12	6	No	None	50	100
Sacred Heart Hospital [2]	Spokane	Church	340	17,276	R	12	12	No	Req	39	100
St. Luke's Hospital [2]	Spokane	NPAssn	265	7,198	R	12	8	(182)	None	46	85
Pierce County Hospital [1-2]	Tacoma	CyCo	220	4,261	R	12	8	(256)	Req	32	100
St. Joseph's Hospital [2]	Tacoma	Church	279	8,273	R	12	6	No	None	46	100
Tacoma General Hospital [1]	Tacoma	NPAssn	213	6,530	R	12	9	No	None	38	75
Northern Permanente Hospital [2]	Vancouver	NPAssn	124	1,904	R	12	8	No	Req	71	100
WEST VIRGINIA											
Bluefield Sanitarium	Bluefield	Corp	165	7,980	R	12	4	No	None	31	75
Charleston General Hospital [2]	Charleston	NPAssn	250	8,564	R	12	10	No	Req	34	100
Kanawaha Valley Hospital [1]	Charleston	Corp	150	.....	M	12	2	No	Req	..	100
Chesapeake and Ohio Hospital [2]	Huntington	NPAssn	165	4,881	R	12	4	No	Req	38	50
St. Mary's Hospital [2]	Huntington	Church	300	14,456	R	12	8	No	Req	37	75
St. Joseph's Hospital [2]	Parkersburg	Church	170	.....	R	12	3	No	None	..	100
Ohio Valley General Hospital [1]	Wheeling	NPAssn	333	9,083	R	12	10	No	Req	30	100
Wheeling Hospital [1]	Wheeling	Church	250	.....	R	12	3	No	None	..	100
WISCONSIN											
St. Elizabeth Hospital	Appleton	Church	301	7,228	R	12	3	No	None	33	50
Luther Hospital [1-2]-X76	Eau Claire	NPAssn	196	6,210	R	12	4	No	Req	37	50
St. Agnes Hospital	Fond du Lac	Church	287	10,313	R	12	5	No	None	47	75
Mercy Hospital [1-2]-X76	Janesville	Church	260	4,821	R	12	4	No	None	48	40
La Crosse Lutheran Hospital [2]-X76	La Crosse	Church	140	4,834	R	12	4	No	Req	40	50
St. Francis Hospital [1-2]-X76	La Crosse	Church	217	9,603	R	12	6	No	None	56	100
Madison General Hospital [2]	Madison	NPAssn	217	9,377	R	12	6	No	Req	49	50
Methodist Hospital [1]	Madison	Church	132	4,855	R	12	4	No	None	49	90
St. Mary's Hospital [2]	Madison	Church	220	7,488	R	12	8	No	None	38	150
State of Wisconsin General Hospital [2]-X76	Madison	State	750	14,688	R	12	20	No	Req	49	..
St. Joseph's Hospital [1-2]-X76	Marshfield	Church	250	7,501	R	12	6	No	None	46	100
Columbia Hospital [2]-X76	Milwaukee	NPAssn	300	7,307	R	12	7	No	Req	44	45
Evangelical Deaconess Hospital [2]	Milwaukee	Church	125	4,949	R	12	3	No	Req	32	100
Milwaukee County Hospital [2]-X76	Milwaukee	County	950	10,117	R	12	40	(183)	Req	71	60-70
Milwaukee Hospital [2]-X76	Milwaukee	Church	263	9,841	R	12	9	No	None	39	75
Misericordia Hospital [2]	Milwaukee	Church	110	3,587	R	12-24	3	No	None	50	100
Mount Sinai Hospital [2]-X76	Milwaukee	NPAssn	175	9,580	R	12	6	No	Req	39	40
St. Joseph Hospital [2]-X76	Milwaukee	Church	372	13,086	R	12	12	No	None	35	60
St. Luke's Hospital [2]	Milwaukee	Church	135	7,110	R	12	4	No	None	34	150
St. Mary's Hospital [2]	Milwaukee	Church	210	7,667	R	12	6	No	None	53	75
St. Michael's Hospital [1]	Milwaukee	Church	130	4,004	M	12	4	(250)	Req	43	100
Mercy Hospital [1]	Oshkosh	Church	207	7,462	R	12	4	No	None	21	100
St. Mary's Hospital [1]	Racine	Church	179	5,731	M	12	4	No	None	31	50
CANAL ZONE											
Gorgas Hospital [2]	Ancon	Fed	705	11,137	R	12	24	No	Req	58	167
HAWAII											
Kuakini Hospital [2]	Honolulu	NPAssn	120	5,240	R	12	3	(120)	Req	41	75
Queen's Hospital [2]	Honolulu	NPAssn	304	11,255	R	12	12	(157)	Req	48	50
St. Francis Hospital [2]	Honolulu	Church	213	7,594	R	12	8	No	Req	48	75
PUERTO RICO											
Charity District Hospital [1]	Arecibo	State	300	5,384	R	12	6	No	None	9	75
Bayamon District Hospital [1]	Bayamon	Fed	200	7,062	R	12	5	No	None	24	75
Fajardo District Hospital [1]	Fajardo	State	200	4,329	R	12	6	No	Req	28	75
Clinica Quirurgica Dr. Pila	Ponce	NPAssn	166	2,843	R	12	6	No	Req	25	100
Presbyterian Hospital [1]	San Juan	Church	114	2,981	R	12	6	(228)	Req	25	25
San Juan City Hospital	San Juan	City	...	...	..	..	..	...	....	..	..

Abbreviations and other references will be found on pages 1158 and 1160.

HOSPITALS APPROVED FOR INTERNSHIPS IN THE DOMINION OF CANADA

For the benefit of graduates of approved medical colleges who desire an internship in Canada, the Council on Medical Education and Hospitals of the American Medical Association has declared that hospitals which conform to the standards of the Canadian Medical Association should be regarded as giving an internship equivalent in educational value to that offered by hospitals in the United States approved for intern training by the Council. It is understood, however, that this statement applies only to hospitals that are unqualifiedly "Approved" under the Canadian plan and does not apply to that group referred to as "Commended."

The following list of hospitals, revised to Jan. 1, 1930, has been furnished by the Canadian Medical Association.

Name of Hospital	Location
Camp Hill Hospital	Halifax, N. S.
Halifax Infirmary	Halifax, N. S.
Victoria General Hospital	Halifax, N. S.
St. John General Hospital	St. John, N. B.
Hospital du St. Sacrament	Quebec, Que.
Hospital Dieu de Quebec	Quebec, Que.
Hospital of the Infant Jesus	Quebec, Que.
Jeffrey Hale's Hospital	Quebec, Que.
Veterans Hospital	Quebec, Que.
Children's Memorial Hospital	Montreal, Que.
Herbert Reddy Mem. Hospital	Montreal, Que.
Homeopathic Hospital	Montreal, Que.
Hospital Notre Dame	Montreal, Que.
Hospital Ste. Jeanne d'Arc	Montreal, Que.
Hospital Ste. Justine	Montreal, Que.
Hotel Dieu de Montreal	Montreal, Que.
Hospital Ste. Luc	Montreal, Que.
Jewish General Hospital	Montreal, Que.
Montreal General Hospital	Montreal, Que.
Queen Mary Veterans Hospital	Montreal, Que.
Royal Victoria Hospital	Montreal, Que.
St. Mary's Hospital	Montreal, Que.
Ste. Anne's Hospital	Ste. Anne de Bellevue, Que.
Brantford General Hospital	Brantford, Ont.
Hamilton General Hospital	Hamilton, Ont.
St. Joseph's Hospital	Hamilton, Ont.
St. Joseph's Hospital	London, Ont.
Victoria Hospital	London, Ont.
Westminster Hospital	London, Ont.
Oshawa General Hospital	Oshawa, Ont.
Ottawa Civic Hospital	Ottawa, Ont.
Ottawa General Hospital	Ottawa, Ont.
Hotel Dieu Hospital	Kingston, Ont.
Kingston General Hospital	Kingston, Ont.
St. Catharines Gen. Hosp.	St. Catharines, Ont.
Christie Street Hospital	Toronto, Ont.
Hospital for Sick Children	Toronto, Ont.
Mount Sinai Hospital	Toronto, Ont.
St. Joseph's Hospital	Toronto, Ont.
St. Michael's Hospital	Toronto, Ont.
Toronto East General Hospital	Toronto, Ont.
Toronto General Hospital	Toronto, Ont.
Toronto Western Hospital	Toronto, Ont.
Wellesley Hospital	Toronto, Ont.
Women's College Hospital	Toronto, Ont.
Grace Hospital	Windsor, Ont.
Metropolitan Hospital	Windsor, Ont.
Hotel Dieu of St. Joseph	Windsor, Ont.
Children's Hospital	Winnipeg, Man.
Deer Lodge Hospital	Winnipeg, Man.
Misericordia Hospital	Winnipeg, Man.
Winnipeg General Hospital	Winnipeg, Man.
St. Boniface Hospital	St. Boniface, Man.
Regina General Hospital	Regina, Sask.
Regina Grey Nun's Hospital	Regina, Sask.
St. Paul's Hospital	Saskatoon, Sask.
Saskatoon City Hospital	Saskatoon, Sask.
Calgary General Hospital	Calgary, Alta.
Colonel Belcher Hospital	Calgary, Alta.
Holy Cross Hospital	Calgary, Alta.
Edmonton General Hospital	Edmonton, Alta.
Misericordia Hospital	Edmonton, Alta.
Royal Alexandra Hospital	Edmonton, Alta.
University of Alberta Hosp.	Edmonton, Alta.
St. Paul's Hospital	Vancouver, B. C.
Shaughnessy Hospital	Vancouver, B. C.
Vancouver General Hospital	Vancouver, B. C.
Royal Jubilee Hospital	Victoria, B. C.
St. Joseph's Hospital	Victoria, B. C.
Veterans Hospital	Victoria, B. C.

ABBREVIATIONS AND NOTES

1. Women interns admitted
2. Women interns only
3. Dental interns employed
4. Male patients only

CyCo	City and County
Corp	Corporation unrestricted as to profit
NPAssn	Nonprofit association
Part	Partnership

Op	Optional
Req	Required
R	Rotation
M	Mixed
S	Straight

† The plus sign indicates additional approval for residencies in specialties, as shown in the Council's list of Approved Residencies and Fellowships for Veteran and Civilian Physicians.

Medical School Affiliations

Footnotes 10 to 81 refer to medical schools affiliated with hospitals for undergraduate clinical clerkships.

Hospitals have been identified with symbol X when a medical school has indicated that the hospital is a major unit in the school's teaching program. Hospitals have been identified with symbol x when a medical school has indicated that the hospital is used to a limited extent in the school's teaching program.

10. Medical College of Alabama, Birmingham, Ala.
11. University of Arkansas School of Medicine, Little Rock, Ark.
12. University of California Medical School, Berkeley-San Francisco, Calif.
13. College of Medical Evangelists, Loma Linda-Los Angeles, Calif.
14. University of Southern California School of Medicine, Los Angeles, Calif.
15. Stanford University School of Medicine, Stanford University—San Francisco, Calif.
16. University of Colorado School of Medicine, Denver, Colo.
17. Yale University School of Medicine, New Haven, Conn.
18. Georgetown University School of Medicine, Washington, D. C.
19. George Washington University School of Medicine, Washington, D. C.
20. Howard University College of Medicine, Washington, D. C.
21. Emory University School of Medicine, Atlanta, Ga.
22. University of Georgia School of Medicine, Augusta, Ga.
23. Chicago Medical School, Chicago, Ill.
    Loyola University School of Medicine, Chicago, Ill.—See footnote 80.
24. Northwestern University Medical School, Chicago, Ill.
25. University of Chicago School of Medicine, Chicago, Ill.
26. University of Illinois College of Medicine, Chicago, Ill.
27. Indiana University School of Medicine, Bloomington-Indianapolis, Ind.
28. State University of Iowa College of Medicine, Iowa City, Iowa.
29. University of Kansas School of Medicine, Lawrence-Kansas City, Kan.
30. University of Louisville School of Medicine, Louisville, Ky.
31. Louisiana State University School of Medicine, New Orleans, La.
32. Tulane University of Louisiana School of Medicine, New Orleans, La.
33. Johns Hopkins University School of Medicine, Baltimore, Md.
34. University of Maryland School of Medicine and College of Phys. and Surg., Baltimore, Md.
35. Boston University School of Medicine, Boston, Mass.
36. Harvard Medical School, Boston, Mass.
37. Tufts College Medical School, Boston, Mass.
38. University of Michigan Medical School, Ann Arbor, Mich.
39. Wayne University College of Medicine, Detroit, Mich.
40. University of Minnesota Medical School, Minneapolis, Minn.
41. St. Louis University School of Medicine, St. Louis, Mo.
42. Washington University School of Medicine, St. Louis, Mo.
43. Creighton University School of Medicine, Omaha, Neb.
44. University of Nebraska College of Medicine, Omaha, Neb.
45. Albany Medical College, Albany, N. Y.
46. Long Island College of Medicine, Brooklyn, N. Y.
47. University of Buffalo School of Medicine, Buffalo, N. Y.
48. Columbia University College of Physicians and Surgeons, New York, N. Y.
49. Cornell University Medical College, New York, N. Y.
50. New York Medical College, Flower and Fifth Avenue Hospitals, New York, N. Y.
51. New York University College of Medicine, New York, N. Y.
52. University of Rochester School of Medicine and Dentistry, Rochester, N. Y.
53. Syracuse University College of Medicine, Syracuse, N. Y.
54. Duke University School of Medicine, Durham, N. C.
55. Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, N. C.
56. University of Cincinnati College of Medicine, Cincinnati, Ohio.
57. Western Reserve University School of Medicine, Cleveland, Ohio.
58. Ohio State University College of Medicine, Columbus, Ohio.
59. University of Oklahoma School of Medicine, Oklahoma City, Okla.
60. University of Oregon Medical School, Portland, Ore.
61. Hahnemann Medical College and Hospital of Philadelphia, Philadelphia, Pa.
62. Jefferson Medical College of Philadelphia, Philadelphia, Pa.
63. Temple University School of Medicine, Philadelphia, Pa.
64. University of Pennsylvania School of Medicine, Philadelphia, Pa.
65. Woman's Medical College of Pennsylvania, Philadelphia, Pa.
66. University of Pittsburgh School of Medicine, Pittsburgh, Pa.
67. Medical College of the State of South Carolina, Charleston, S. C.
68. University of Tennessee College of Medicine, Memphis, Tenn.
69. Meharry Medical College, Nashville, Tenn.
70. Vanderbilt University School of Medicine, Nashville, Tenn.
71. Southwestern Medical College of the Southwestern Medical Foundation, Dallas, Tex.
72. University of Texas School of Medicine, Galveston, Tex.
73. Baylor University College of Medicine, Houston, Tex.
74. University of Utah School of Medicine, Salt Lake City, Utah.
75. University of Vermont College of Medicine, Burlington, Vt.
76. University of Virginia Department of Medicine, Charlottesville, Va.
77. Medical College of Virginia, Richmond, Va.
78. University of Wisconsin Medical School, Madison, Wis.
79. Marquette University School of Medicine, Milwaukee, Wis.
80. Stritch School of Medicine of Loyola University, Chicago, Ill.
81. University of Washington, School of Medicine, Seattle, Wash.

Affiliations as Referred to in Column Headed: "Affiliated Service"

100. Los Angeles County Hospital, Los Angeles, obstetrics.
101. Los Angeles County Hospital, Los Angeles, contagion.
102. Children's Hospital, Los Angeles, pediatrics.
103. Maricopa County Hospital, Phoenix, medicine, orthopedics, pediatrics, surgery.
104. Pima County Hospital, Tucson.
105. St. Francis-St. Luke's Hospital, San Francisco, obstetrics, pediatrics.
106. Middlesex, Rocky Hill Veterans Home, Waterbury, Undercliff, outpatient, medicine.
107. Grady Memorial Hospital, Atlanta, Ga. medicine, pediatrics, obstetrics-gynecology.
108. Grady Memorial Hospital, Atlanta, Ga., medicine.
109. Outlook Sanitarium, Urbana, Illinois, tuberculosis.
110. Cuneo Hospital, Chicago, obstetrics.
111. Winfield Sanatorium, Winfield, tuberculosis.
112. Children's Memorial Hospital, Chicago, pediatrics; Lake County Sanitarium, tuberculosis.
113. Winnebago County Hospital, contagious diseases.
114. Sedgwick County Hospital, Booth Memorial Hospital.
115. Children's Hospital, Louisville, pediatrics.
116. Johns Hopkins Hospital, Baltimore, male urology.
117. University of Maryland Clinics.
118. Chapin Hospital, Providence, R. I., communicable diseases.
119. Children's Hospital, Boston, pediatrics.
120. St. Joseph's Retreat, Detroit, Herman Keifer Hospital, Detroit, contagion, psychiatry.
121. St. Joseph Mercy Hospital, Ann Arbor, pediatrics.
122. Miller Memorial Hospital, outpatient.
123. Koch and City 21, isolation, communicable and contagious diseases.
124. Cheming County T. B. Sanitarium, tuberculosis.
125. S. C. Crippled Children's Home, Florence, Darlington, T. B. Sanitorium and S. C. V. D. Hosp.
126. Essex-County Overbrook Hospital, Essex County Sanatorium, Babies' Hospital and Essex County Hospital for Contagious Diseases, psychiatry, tuberculosis, pediatrics, and contagious diseases.
127. West Tennessee T. B. Hospital, thoracic.
128. U. S. Naval Hospital, Portsmouth, Va., obstetrics; Kings Daughters Pediatric Clinic.
129. Kalaupapa Leper Settlement, Hansen's Disease.
130. Municipal Tuberculosis Sanitarium, chest; Children's Memorial, pediatrics.
131 Santa Monica Hospital, Santa Monica, emergency service and additional outpatient.
132. California Hospital, Los Angeles, pediatrics.
133. Southbury Training School, pediatrics.
134. Lewis Memorial, contagious and obstetrics-gynecology; Municipal, tuberculosis.
135. Indiana University Medical Center, pediatrics.
136. Broadlawns, Des Moines, Iowa, outpatient.
137. University of Maryland Hospital, obstetrics.
138. Boston Lying-In & Deaconess, pathology.
139. Wesson Maternity Hospital, Mass, obstetrics.
140. Herman Keifer Hospital and University of Mich. Hospital, contagious diseases and pre and post natal clinics.
141. Herman Keifer and Woman's Hospital, Detroit, obstetrics and contagion.
142. Evangeline Home, Mich., obstetrics.
143. St. Barnabas Hospital, Minneapolis, pediatrics.
144. Gillette State Hospital, Minn., orthopedics.
145. Children's Hospital, St. Paul, Minn., pediatrics.
146. Douglas County, Omaha, Neb., traumatic surgery.
147. Margaret Hague, obstetrics; Pollak Chest Hospital, tuberculosis.
148. Mt. Sinai Hospital, Cleveland, gynecology and obstetrics.
149. Children's Hospital, Columbus, Ohio, pediatrics.
150. St. Vincent's Hospital, Portland, Ore., obstetrics.
151. Hosp. of the Univ. of Pa. Hospital, obstetrics.
152. St. Christopher's Hospital for Children, Philadelphia, Penna., pediatrics.
153. Vanderbilt University Hospital, Nashville, Tenn., outpatient.
154. University of Utah, Salt Lake General Hospital.
155. Stuart Circle Hospital, St. Luke's Hospital, St. Elizabeth's Hospital, Pine Camp Hospital, Raiford Memorial Hospital, Franklin, Va., Mary Washington Hospital, Fredricksburg, Va., Southside Community Hospital, Farmville, Va., Northampton-Accomack Memorial Hospital, Massawadox, Va. All general with the exception of Pine Camp Hospital which is a Tuberculosis Hospital.
156. Roanoke City Tuberculosis, tuberculosis.
157. Leahi-medicine; Tripler-surgery; Kalaupapa-medicine, surgery, leprosy.
158. San Francisco City, County Hospital, obstetrics-gynecology.
159. N. Y. University, basic sciences.
160. Indianapolis Gen. Hospital, emergency.
161. Broadlawns Gen. Hospital, Des Moines, Iowa, outpatient and emergency.
162. Herman Keifer and Receiving Hospitals, tuberculosis, contagious diseases, and emergency service.
163. Children's Hospital of Michigan, Herman Keifer Hospital, Pediatrics, contagion, obstetrics.
164. General Hospital 21—Leeds TB. Sanatorium, Kansas City, Mo., tuberculosis.
165. Margaret Hague and Pollak Hospital, obstetrics, tuberculosis.
166. Brooklyn Thoracic, Brooklyn, tuberculosis.
167. N. Y. University, basic sciences.
168. Beth Israel Hospital, N. Y., obstetrics.
169. N. C. Orthopedic, Gastonia, Warm Springs Foundation, Shriner's, Greenville, S. C., Charlotte Memorial; Charity, New Orleans; Columbia, Columbia, S. C., Nor. Car. Sanatorium, McCain, N. C., Moore County, Pinehurst, N. C., orthopedics, pediatrics, surgery.
170. Bowman Gray Medical School, Winston-Salem, N. C., pathological conference.
171. Children's Hospital, Akron, Ohio, pediatrics.
172. Children's Hospital, pediatrics.
173. Cincinnati Gen. Hospital, contagious and pediatrics.
174. Children's Hospital, Columbus, pediatrics.
175. Children's Hospital and St. Francis Hospital, pediatrics, medicine, surgery.
176. Shriners Hospital and City Isolation Hospital, children's orthopedics and contagion.
177. Providence Hospital, Portland, pediatrics.
178. West Side Hospital, Scranton, obstetrics.
179. Chapin Hospital, Providence, R. I., contagion and mental.
180. Medical College of Virginia, medicine, surgery, obstetrics-gynecology.
181. Children's Orthopedic Hospital, Seattle, pediatrics, orthopedics for children.
182. Booth Mem. Hospital, Spokane, Wash., obstetrics.
183. City Isolation and St. Joseph's, contagion and obstetrics.
184. Children's Hospital, Los Angeles, pediatrics; Compton Sanat., Compton, Calif., psychiatry.
185. Los Angeles County Hospital, Communicable Diseases.
186. Emergency and County, Los Angeles, contagious diseases.
187. Fairmont Hospital, Oakland, chronic, clinic, tuberculosis.
188. Boulder-Colo. Sanitarium, Boulder, Colo. outpatient, e. e. n. t., pediatrics and x-ray.
189. Colorado Gen. Hospital, applied basic medical science course.
190. Children's Hospital, Denver, pediatrics.
191. N. E. Medical Center and Post Graduate Tufts College—surgical research, exper. surg., anatomy.
192. Gallinger Hospital, Washington, D. C., obstetrics.
193. Children's and Casualty, pediatrics and casualty work.
194. Chicago Memorial Hospital, obstetrics-gynecology, pediatrics.
195. Pediatric's Memorial Hospital, pediatrics.
196. Evansville State and Boehne T. B. Hospital, mental and tuberculosis.
197. Sedgewick County Hospital, Wichita, Kansas, rotating.
198. St. Joseph Infirmary and General Hospital, pediatrics and diagnostic clinic.
199. Robt. B. Brigham; Haynes Memorial New England Deaconess, Pondville Hospital, Rutland V. A. Hospital, chronic, cancer, communicable.
200. University of Michigan, basic sciences.
201. Receiving and Children's, Detroit, orthopedics, pediatrics.
202. Industrial School for Boys, Ingham, County T. B. Sanatorium, minor surgery, tuberculosis.
203. Oakland County T. B. Sanatorium, tuberculosis; Pontiac State Hospital, mental.
204. Miller Mem. Hospital, Duluth, outpatient.
205. University Hospital, Minneapolis, all services.
206. Minneapolis Gen. Hospital, obstetrics-gynecology, pediatrics.
207. Minneapolis Gen. Hospital, receiving ward.
208. Gillette Hospital, Minn., orthopedics.
209. Alexian Brothers, St. Louis, Missouri, psychiatry.
210. St. Elizabeth Hosp., Elizabeth, N. J., obstetrics.
211. Geneva General Hospital, Geneva, N. Y., Park Ave. Hospital, Rochester, N. Y., mixed.
212. Misericordia Hospital, New York City, obstetrics-gynecology and pediatrics.
213. Children's Hospital of Akron, pediatrics.
214. St. Ann's Hospital, obstetrics.
215. Magee, Woman's, Children's, Eye, Ear, Nose and Throat, Pittsburgh, Penna., obstetrics-gynecology, pediatrics, e. e. n. t.
216. Vanderbilt, General Hospital, City Health Dept., pediatrics, obstet.
217. St. Mary's Infirmary, Galveston, obstetrics.
218. King County, Seattle, outpatient.
219. Firland Sanit., Seattle, chest diseases.
220. Naval Medical Center, Hope Haven, Brewster and City Clinics, outpatient clinics, medicine, surgery, gynecology, pediatrics and orthopedics.
221. Grady Memorial Hospital, emergency.
222. University Hospital, Chicago.
223. Grace Hospital, Detroit, obstetrics, pediatrics.
224. City and Children's Hospitals, medicine, pediatrics, surgery.
225. Creighton School of Medicine & County, emergency service.
226. Betty Bachrach Home for Crippled Children, Pine Rest Sanat., Children's Seashore Home.
227. Anthony N. Brady Maternity Hospital, obstetrics.
228. Kingston Avenue Hospital, pediatrics.
229. Harlem Hospital, obstetrics.
230. Syracuse City Hospital, contagious; Syracuse Psychopathic, psychiatry.
231. Watts Hospital, Durham, N. C., basic sciences.
232. Cincinnati General Hospital, pediatrics.
233. City Hospital, Lakeside Hospital, Cleveland, tuberculosis, contagious diseases.
234. Children's Hospital of Philadelphia, pediatrics.
235. Pine Breeze Sanit., tuberculosis; Children's Hospital, pediatrics.
236. Gulf, Colo. and Santa Fe R. R. Assoc. Hospital, orthopedics, pediatrics.
237. Blue Ridge Sanat., Martha Jefferson Hospital, Kings Daughters Hospital and Baptist Hospital, rotating.
238. University Hospital of the School of Tropical Medicine, San Juan, Puerto Rico, tropical medicine, pathology and parasitology.
239. Hahnemann, obstetrics.
240. Rosella Maternity Hospital, Pittsburgh, obstetrics.
241. St. Elizabeth's, Brighton, Mass., obstetrics.
242. Saginaw County Infirmary, Saginaw County Contagious Hospital and T. B. Sanat., chronic diseases.
243. Children's Hospital, San Francisco, pediatrics.
244. Children's Hospital, pediatrics.
245. Boston City Hospital, surgery.
246. J. J. McCook Memorial Hospital, isolation service.
247. Herman Keifer Hospital, obstetrics and contagion.
248. Nashville General and St. Thomas Hospital, medicine and pediatrics
249. City Hospital, isolation.
250. Kings Daughters, Florence Crittenden, pediatrics, obstetrics.
251. Miss. Tuberculosis Sanat., diseases of chest.
252. Philadelphia Hospital, cont. dis. and cont. medicine.
253. Pima County Hospital, traumatic and surgery.
254. Santa Barbara General Hospital.
255. Oklahoma University Hospital.
256. Mount View Sanatorium, tuberculosis; Prenatal Clinic, obstetrics-gynecology.
257. Margaret Hague Maternity Hospital, obstetrics.
258. Children's Orthopedic Hospital.
259. St. Joseph's, obstetrics.
260. Gallinger Municipal Hospital, obstetrics, pediatrics.
261. Mercy Hospital, pediatrics.
262. Santa Barbara Cottage Hospital.
263. Municipal Hospital for Contagious Diseases, contagion.
264. Ingham County T. B. Sanatorium, tuberculosis.
265. Johns Hopkins Hospital, pediatrics.
266. Emergency Hospital, traumatic surgery.
267. Chronic Disease Hospital, chronic diseases; Dunham Hospital, tuberculosis.
268. Arlington and Prince George Hospital, medicine and surgery.

V 14
1950

APPROVED RESIDENCIES AND FELLOWSHIPS

Council on Medical Education and Hospitals of the American Medical Association

535 North Dearborn Street, Chicago 10

Revised to April 1, 1950

Hospitals, 1,079; Assistant Residencies, Residencies and Fellowships, 18,669

The following services are approved by the Council on Medical Education and Hospitals as meeting the requirements of the Essentials of Approved Residencies and Fellowships. In those specialties in which certifying boards have been established approval is extended in concurrence with the Board concerned. The number of years of training for which approval has been granted is indicated in the column, "Length of Approved Program (years)." Residencies in which this designation does not appear have been approved without specifying the number of years for which they are accredited.

The (*) indicates hospitals approved for intern training. The (†) represents temporary approval, pending formal inspection, in accordance with the plan announced in THE JOURNAL, March 2, 1946, p. 580. Granting of approval on this basis has been terminated by action of the Council and the Advisory Board for Medical Specialties. Hospitals temporarily approved prior to this action currently are being inspected to determine whether or not approval should be continued and, if so, the number of years of training for which they will be accredited.

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1. ALLERGY

The following services are approved by the Council and the American Board of Internal Medicine

Hospitals, 9 Assistant Residencies and Residencies, 12

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
Veterans Administration							
Veterans Admin. Hospital	Aspinwall, Pa.	L. H. Criep	202	.....	2	7/1	n
Nonfederal							
Northwestern University Medical Center	Chicago	S. Feinberg	40	500	2	1/1, 7/1	200
†Johns Hopkins Hospital[1]	Baltimore		...	.....	..	.....	...
†Massachusetts General Hospital[2]	Boston		...	.....	..	.....	...
Jewish Hospital[3]	Brooklyn	M. Walzer and M. Brunner	47	11,367	2	7/1	30
Roosevelt Hospital[3]	New York City	R. A. Cooke	183	35,474	2	7/1	200
Montefiore Hospital[1]	Pittsburgh	L. H. Criep	...	11,531	1	7/1	50
†University of Virginia Hospital[2]	Charlottesville, Va.	O. Swineford, Jr.	...	1,135	2	7/1	...
†Milwaukee County Hospital[3]	Milwaukee		141	1,658	1	7/1	175.80

2. ANESTHESIOLOGY

The following services are approved by the Council and the American Board of Anesthesiology. Residencies in this specialty have been approved without specifying the number of years for which they are accredited. The Board will give appropriate credit for training in these hospitals on an individual basis.

Hospitals, 213 Assistant Residencies and Residencies, 731

Name of Hospital	Location	Chief of Service	Total Anesthetics	Inhalation Anesthetics	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
United States Army							
Letterman General Hospital[3]	San Francisco	E. P. Shannon	5,451	2,743	2	1/1, 7/1	n
Fitzsimmons General Hospital[3]	Denver	H. Makel	4,071	2,550	3	1/1, 7/1	n
Army Medical Center[2,12]	Washington, D. C.	J. Gardiner	6,388	2,801	2	7/1	n
Brooke Army Medical Center[2,11]	San Antonio, Texas	F. C. Dye	12,088	8,382	6	7/1	n
United States Navy							
U. S. Naval Hospital[3]	Long Beach, Calif.	D. M. Pino	9,654	4,161	..	.....	n
U. S. Naval Hospital	Oakland, Calif.	F. Thornburg	5,780	634	2	.....	n
U. S. Naval Hospital[2]	Bethesda, Md.	H. A. Gross	4,061	1,256	4	Varies	n
U. S. Naval Hospital	Chelsea, Mass.		2,986	536	2	.....	n
U. S. Naval Hospital[1]	St. Albans, N. Y.	J. G. Kurfess	2,322	304	4	Varies	n
U. S. Naval Hospital[3]	Philadelphia	S. Whitehouse	3,225	980	1	1/1, 7/1	n
United States Public Health Service							
U. S. Marine Hospital[2,1]	Stapleton, N. Y.	C. L. Herbert	7,856	1,767	2	7/1	n
Veterans Administration							
Veterans Admin. Center[2,1]	Los Angeles	N. H. Rupp	5,208	1,017	9	1/1, 7/1	n
Veterans Admin. Hospital [3]	San Francisco	W. R. Neff	1,451	320	4	7/1	n
†Veterans Admin. Hospital[2]	Van Nuys, Calif.	H. Rosenberg	3,675	121	1	1/1, 7/1	n

Numerical and other references will be found on page 1215.

2. ANESTHESIOLOGY—Continued

Name of Hospital	Location	Chief of Service	Total Anesthetics	Inhalation Anesthetics	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
Veterans Admin. Hospital [1]	Ft. Logan, Colo.	F. Brown	19,004	423	2	1/1	n
Veterans Admin. Hospital [1]	Washington, D. C.	L. M. Jones	2,108	331	2	7/1	n
†Veterans Admin. Hospital [1]	Chamblee, Ga.	W. H. Galvin	2,867	365	3	7/1	n
Veterans Admin. Hospital	Hines, Ill.	W. A. Conroy	6,497	1,518	12	1/1, 7/1	n
†Veterans Admin. Hospital [1]	Indianapolis	H. L. Egbert	1,858	323	2	1/1, 7/1	n
Veterans Admin. Center [1]	Des Moines, Iowa	J. L. Bailey	4,212	666	7	7/1	n
Veterans Admin. Center [1]	Wadsworth, Kan.	R. S. McKee	4,241	344	3	1/1, 7/1	n
†Veterans Admin. Hospital [1]	Louisville, Ky.	H. Winsor	4,701	979	2	.....	n
Veterans Admin. Hospital [1]	New Orleans, La.	M. A. Vanney	2,168	271	2	7/1	n
Veterans Admin. Hospital	Boston	R. Hill	4,698	438	3	1/1, 7/1	n
Veterans Admin. Hospital [1]	Framingham, Mass.	.....	4,445	198	3	8/1	n
Veterans Admin. Hospital [1]	Minneapolis	A. E. Berndt	4,152	1,519	10	7/1	n
Veterans Admin. Hospital [1]	Jefferson Bks., Mo.	R. M. Barrett	3,197	823	4	7/1	n
Veterans Admin. Hospital [1]	Buffalo	.....	1,762	184	..	..	n
Veterans Admin. Hospital [1]	New York City	B. J. Ciliberti	6,601	1,395	9	1/1, 7/1	n
Veterans Admin. Hospital [1]	Staten Island, N. Y.	B. J. Ciliberti	8,589	554	3	7/1	n
Veterans Admin. Hospital	Dayton, Ohio	.....	3,800	632	1	Varies	n
Veterans Admin. Hospital [1]	Oklahoma City	E. W. Cubler	1,416	69	1	1/1	n
Veterans Admin. Hospital	Portland, Ore.	J. H. Hutton	2,600	600	2	1/1, 7/1	n
Veterans Admin. Hospital	Dearborn, Mich.	.....	4,440	413	3	7/1	n
Veterans Admin. Hospital	Aspinwall, Pa.	L. G. David	3,538	210	2	7/1	n
†Veterans Admin. Hospital [1]	Memphis, Tenn.	R. Popper	5,010	788	3	7/1	n
Veterans Admin. Hospital [1]	Dallas, Texas	J. E. Lamberth	1,774	287	3	1/1	n
Veterans Admin. Hospital [1]	McKinney, Texas	F. A. Alexander	1,538	513	2	7/1	n
Veterans Admin. Center [1]	White River Jct., Vt.	R. E. Lapointe	2,006	85	2	7/1	n
Veterans Admin. Hospital [1]	Richmond, Va.	I. B. Gold	3,502	259	6	7/1	n
Veterans Admin. Center [1]	Milwaukee, Wis.	R. Foregger and R. Tella	2,773	487	5	7/1	n
Nonfederal							
Jefferson-Hillman Hospital[a]	Birmingham, Ala.	A. McNeal	9,714	8,470	3	7/1	50
Employees' Hospital of Tennessee Coal, Iron and Railroad Company[a]	Fairfield, Ala.	E. B. Robinson, Jr.	3,708	2,284	1	7/1	225
Los Angeles County Hospital[a]	Los Angeles	J. B. Dillon	11,518	2,437	12	Varies	165
White Memorial Hospital[a]	Los Angeles	F. E. Leffingwell	3,639	734	6	7/1	120
Samuel Merritt Hospital	Oakland, Calif.	B. Anderson	5,604	3,237	2	7/1	100
Children's Hospital[a]	San Francisco	H. D. Lapp	3,616	1,040	2	7/1	50
Franklin Hospital[a]	San Francisco	J. L. Cardwell	5,421	2,005	1	7/1	100
French Hospital[a]	San Francisco	M. J. Skaggs	3,208	1,123	1	7/1	150
St. Joseph's Hospital[a]	San Francisco	C. Wyhoff	4,353	1,308	1	7/1	200
Stanford University Hospitals[a]	San Francisco	W. B. Neff	6,372	3,235	2	7/1	50
University of California Hospital[a]	San Francisco	F. J. Murphy	5,700	.....	6	7/1	75
University of Colorado Medical Center, Colorado General Hospital[a]	Denver, Colo.	P. A. Lief	8,536	2,663	6	7/1	75
Denver General Hospital[a]	Denver, Colo.	P. A. Lief	3,578	1,541	4	7/1	75
Bridgeport Hospital[a]	Bridgeport, Conn.	D. M. Massey	5,780	2,513	1	7/1	100
Hartford Hospital[a,13]	Hartford, Conn.	R. M. Tovell	12,191	27,908	20	.....	50
St. Francis Hospital[a]	Hartford, Conn.	S. J. Martin	12,488	8,819	10	1/1, 7/1	75
Grace-New Haven Community Hospital, New Haven Unit (University Service)[a]	New Haven, Conn.	L. J. Hampton	6,013	3,281	8	7/1	40
Hospital of St. Raphael[a]	New Haven, Conn.	M. L. Garofolo	9,513	3,824	4	7/1	75
St. Mary's Hospital[a]	Waterbury, Conn.	W. Grillo	5,117	3,274	2	7/1	150
Memorial Hospital[a]	Wilmington, Del.	R. E. Allen	3,308	2,245	1	7/1	100
Doctors Hospital[a]	Washington, D. C.	C. W. Hyde	7,530	6,175	3	1/1, 7/1	100
Gallinger Municipal Hospital[a]	Washington, D. C.	F. B. Tuohy	10,758	6,310	3	7/1	100
†Garfield Memorial Hospital[a]	Washington, D. C.	E. B. Mason	7,306	6,171	..	.....	..
Georgetown University Hospital[a]	Washington, D. C.	F. Tuohy	6,953	4,550	10	4/1, 7/1	25
George Washington University Hospital[a]	Washington, D. C.	C. Coakley	7,825	4,130	8	7/1	50
Riverside Hospital [1]	Jacksonville, Fla.	J. T. Stage	1,042	667	1	9/1	150
University Hospitals[a]	Augusta, Ga.	P. P. Volpitto	8,527	4,028	7	7/1	40
American Hospital[a]	Chicago	Z. Harris	3,580	1,750	6	1/1, 7/1	50
Cook County Hospital[a]	Chicago	F. Grem	13,164	8,568	2	1/1, 7/1	33
Grant Hospital	Chicago	L. Gitteleson	4,700	2,640	1	7/1	100
Michael Reese Hospital[a]	Chicago	B. Stodsky	9,056	4,145	7	Varies	50
Mount Sinai Hospital[a]	Chicago	R. Weyl	4,151	3,100	2	.....	50
Northwestern University Medical Center Passavant Memorial Hospital[a]	Chicago	L. Watt	3,960	3,284	..	.....	...
Wesley Memorial Hospital[a]	Chicago	M. Karp	8,700	6,755	3	1/1	25
Presbyterian Hospital[a]	Chicago	C. D. Anderson	9,822	7,184	3	.....	50
Research and Educational Hospital[a]	Chicago	A. Salvey	5,200	2,900	6	7/1	50
St. Luke's Hospital[a]	Chicago	W. A. Conroy	6,248	.....	6	1/1, 7/1	25
University of Chicago Clinics[a]	Chicago	H. Livingstone	10,248	6,587	9	Varies	50
Evanston Hospital[a]	Evanston, Ill.	J. E. Remlinger	5,570	2,940	4	1/1, 7/1	50
Indianapolis General Hospital[a]	Indianapolis	L. Mueller	12,826	2,571	2	7/1	100
Indiana University Medical Center[a]	Indianapolis	V. E. Stoelting	6,587	2,922	7	7/1	66.33
Methodist Hospital[a]	Indianapolis	J. M. Whitehead	19,297	11,691	2	.....	200
Ball Memorial Hospital[a,1]	Muncie, Ind.	W. B. Adams	7,645	5,248	1	7/1	100
†Memorial Hospital[a]	South Bend, Ind.	R. Rosenheimer	4,774	4,000	1	7/1	150
University Hospitals[a]	Iowa City	S. Cullen	9,592	5,473	9	.....	...
University of Kansas Medical Center[a]	Kansas City, Kan.	P. H. Lorhan	5,426	3,870	6	7/1	100
†St. Joseph Hospital[a]	Lexington, Ky.	W. G. Sergent	9,330	4,005	3	7/1	100
Louisville General Hospital[a]	Louisville, Ky.	R. P. Bergner	5,436	3,617	3	7/1	45
Charity Hospital of Louisiana[a]	New Orleans	J. Adriani	20,144	12,757	9	7/1	25
Ochsner Foundation Hospital [1]	New Orleans	G. R. Grant	4,522	1,659	4	Varies	125
Touro Infirmary[a]	New Orleans	W. Baker	7,081	.....	4	7/1	17.50
Eastern Maine General Hospital[a]	Bangor, Maine	C. S. Dwyer	5,008	3,712	1	7/1	50
Central Maine General Hospital[a]	Lewiston, Maine	G. Clapperton	3,788	1,979	1	7/1	100
Maine General Hospital[a]	Portland, Maine	J. R. Lincoln	5,866	2,119	4	7/1	50
†University Hospitals[a]	Baltimore	A. T. Nelson	8,010	1,722	5	7/1	100
Beverly Hospital[a]	Beverly, Mass.	J. H. Fine	3,965	585	1	.....	75
†Boston City Hospital[a]	Boston	S. C. Wiggin	18,646	6,361	12	Varies	140
Faulkner Hospital[a]	Boston	E. C. Allen	2,270	469	..	.....	...
Lahey Clinic	Boston	C. H. Eversole	.....	.....	11	Varies	125
Massachusetts General Hospital[a]	Boston	H. K. Beecher	.....	.....	..	.....	...
Massachusetts Memorial Hospitals[a]	Boston	J. G. Arrowood	3,549	1,435	9	7/1, 9/1	50
New England Hospital for Women and Children[a]	Boston	E. Bartlett	3,177	1,886	..	.....	50
St. Elizabeth's Hospital[a]	Boston	L. Zentgraf	6,200	4,700	2	7/1	75
Cambridge City Hospital[a]	Cambridge, Mass.	D. R. Branch	4,651	1,900	1	7/1	75

Numerical and other references will be found on page 1215.

2. ANESTHESIOLOGY—Continued

Name of Hospital	Location	Chief of Service	Total Anesthetics	Inhalation Anesthetics	Asst., Res. and Residencies Offered *	Beginning of Service (1956)	Beginning Stipend (Month)
†Mount Auburn Hospital[a]	Cambridge, Mass.	J. H. Buskirk	5,183	2,554	2	9/1	...
Newton-Wellesley Hospital[a]	Newton, Mass.	R. S. Hunt	4,966	2,984	1	7/1	100
Salem Hospital[a]	Salem, Mass.	R. R. Richardson	4,048	2,633	1	Varies	50
Memorial Hospital[a]	Worcester, Mass.	C. B. Hinds, Jr.	6,405	2,887	1	7/1	100
St. Vincent's Hospital[a]	Worcester, Mass.	W. J. Martin	5,274	2,972	...	.....	...
City of Detroit Receiving Hospital[a]	Detroit	L. B. Taylor	6,112	1,918	7	7/1	100-68
Providence Hospital[a]	Detroit	N. M. Bittrich	6,130	3,606	1	.....	140
Butterworth Hospital[a]	Grand Rapids, Mich.	M. L. Byrd	5,918	2,316	1	7/1	100
University of Minnesota Hospitals[a]	Minneapolis	R. Knight	4,441	3,079	13	7/1	125
Mayo Foundation	Rochester, Minn.	J. S. Lundy	.....	.....	15	.....	92.50
Ancker Hospital[a]	St. Paul	R. Knight	6,708	1,063	5	.....	...
Research Hospital[a]	Kansas City, Mo.	M. C. Peterson	4,333	1,865	1	7/1	133
St. Mary's Group of Hospitals[a]	St. Louis	J. McNearney	9,004	2,940	3	7/1	85
Mary Hitchcock Memorial Hospital[a]	Hanover, N. H.	R. H. Barrett	4,855	1,943	3	7/1	150
†Elliot Hospital	Manchester, N. H.	H. Elliot	2,466	684	1	7/1	200
West Jersey Hospital	Camden, N. J.	E. K. Hultzman	5,000	3,000	3	7/1	125
Jersey City Hospital	Jersey City, N. J.	W. Gleason	5,528	2,113	6	Varies	85
St. Joseph Hospital	Paterson, N. J.	H. G. Walker	3,212	2,358	1	7/1	150
Albany Hospital[a]	Albany, N. Y.	M. H. Harmel	7,100	.....	8	7/1	41.66
Beth-El Hospital[a]	Brooklyn	M. C. Goldfeder	5,815	1,440	1	7/1	100
Jewish Hospital[a]	Brooklyn	I. M. Pallin	7,729	4,043	6	7/1	100
Maimonides Hospital[a]	Brooklyn	L. Holzmann	8,661	4,150	3	7/1	75
Methodist Hospital[a]	Brooklyn	R. Waelsch	9,228	5,222	1	7/1	25
St. Catherine's Hospital[a]	Brooklyn	F. F. Ambro	5,570	1,560	2	7/1	100
Unity Hospital[a]	Brooklyn	B. A. Greene	2,715	952	1	7/1	100
Buffalo General Hospital[a]	Buffalo	C. J. Durchordwe	11,571	5,940	3	7/1	25
Edward J. Meyer Memorial Hospital[a]	Buffalo	P. W. Searles	4,058	2,529	2	7/1	100
Millard Fillmore Hospitals[a]	Buffalo	P. W. Searles	3,040	1,270	1	7/1	50
Flushing Hospital and Dispensary[a]	Flushing, N. Y.	E. Apogi	6,510	3,906	1	.....	...
†Mary Immaculate Hospital[a]	Jamaica, N. Y.	G. Frank	.....	.....	3	7/1	75
Bellevue Hospital Div. III—New York Univ.[a]	New York City	.....	.....	.....	...	.....	...
Beth Israel Hospital[a]	New York City	S. G. Hershey	4,854	2,363	4	1/1, 7/1	50
Flower and Fifth Avenue Hospitals[a]	New York City	D. F. Bruce	5,021	3,497	1	7/1	...
French Hospital[a]	New York City	S. Lesinger	3,106	2,023	3	7/1	100
Goldwater Memorial Hospital[a]	New York City	E. A. Rovenstine	963	329	2	7/1	166.41
Hospital for Joint Diseases[a]	New York City	A. M. Betcher	3,452	2,346	2	7/1	40
Hospital for Special Surgery[a]	New York City	C. Dunstan	2,500	2,019	2	7/1, 10/1	100
Lenox Hill Hospital[a]	New York City	M. Frick	9,273	6,345	2	Varies	50
Metropolitan Hospital[a]	New York City	F. E. Fierro	3,304	2,522	4	7/1	100
Montefiore Hospital for Chronic Diseases[a]	New York City	B. Cohen	.....	.....	1	.....	...
Mount Sinai Hospital[a]	New York City	B. H. Eisenberg	9,249	5,297	2	.....	...
New York City Hospital[a]	New York City	D. Bizzari	5,014	1,258	3	7/1	229.16
New York Hospital[a]	New York City	J. Artusio	14,400	10,005	2	7/1	25
New York Polyclinic Medical School and Hospital[a]	New York City	S. Resnick	6,345	2,523	2	7/1	100
Presbyterian Hospital[a]	New York City	F. M. Pappet	17,602	12,804	20	1/1, 7/1	41.66
St. Clare's Hospital[a]	New York City	R. A. Rose	5,529	2,060	1	7/1	25
St. Luke's Hospital[a]	New York City	G. E. Burford	7,548	2,553	3	7/1	50
St. Vincent's Hospital[a]	New York City	V. J. Collins	4,661	3,542	2	7/1	50
Rydenham Hospital[a]	New York City	M. C. Fischman	2,063	1,153	1	7/1	120
University Hospital[a]	New York City	R. W. Robertazzi	5,186	3,466	6	1/1, 5/15	110
Rochester General Hospital[a]	Rochester, N. Y.	.....	5,587	3,134	2	7/1	55
St. Mary's Hospital[a]	Rochester, N. Y.	D. Bianchi	7,561	4,762	2	7/1	125
Ellis Hospital[a]	Schenectady, N. Y.	H. A. Snell	7,959	5,987	2	7/1	100
Syracuse University Medical Center Hospitals[a]	Syracuse, N. Y.	E. J. Schmoiles	7,178	2,857	..	7/1	125
Grasslands Hospital[a]	Valhalla, N. Y.	H. F. Bishop	1,530	691	2	7/1	125
Duke Hospital[a]	Durham, N. C.	R. Martin	11,963	5,915	3	7/1	83.33
†Mercy Hospital[a]	Canton, Ohio	L. L. Frick	7,279	5,221	1	7/1	100
Christ Hospital[a]	Cincinnati	L. E. Larrick	7,664	1,302	..	7/1	90
Cleveland Clinic Hospital[a]	Cleveland	D. F. Hale	9,933	1,327	6	7/1	135
†Mount Sinai Hospital[a]	Cleveland	S. Katz	7,674	4,261	2	7/1	100
St. Luke's Hospital[a]	Cleveland	B. B. Sankey	11,240	4,638	2	7/1	75
Woman's Hospital[a]	Cleveland	M. Oppenheim	5,782	2,289	1	.....	100
Ohio State University Hospitals[a]	Columbus, Oh'o	J. J. Jacoby	6,497	3,046	3	7/1	50
Huron Road Hospital[a]	East Cleveland, Ohio	R. J. Whitacre	17,407	5,787	6	7/1	75
†Lakewood Hospital[a]	Lakewood, Ohio	S. Gardner	4,640	2,946	..	7/1	100
Maumee Valley Hospitals[a]	Toledo, Ohio	K. C. McCarthy	4,200	520	1	7/1	125
St. Elizabeth's Hospital[a]	Youngstown, Ohio	A. J. Bayuk	9,500	5,304	1	7/1	115
Youngstown Hospital[a]	Youngstown, Ohio	A. J. Fisher	12,900	5,980	2	1/1, 7/1	75
University Hospitals[a]	Oklahoma City	H. A. Bennett	3,902	3,290	3	7/1	35
University of Oregon Medical School Hospitals and Clinics[a]	Portland, Ore.	F. Haugen	10,072	3,841	4	7/1	75
Abington Memorial Hospital[a]	Abington, Pa.	R. W. Malo	5,400	3,644	2	7/1	100
Graduate Hospital of the University of Pennsylvania[a]	Philadelphia	H. H. Stone	4,842	3,850	..	7/1	...
Hahnemann Hospital[a]	Philadelphia	H. S. Ruth	9,391	3,375	10	Varies	50
Hospital of the University of Pennsylvania[a]	Philadelphia	R. D. Dripps	13,916	6,235	13	Varies	100
†Hospital of the Woman's Medical College of Pennsylvania[a]	Philadelphia	W. Weiss	3,016	1,445	2	7/1	60
†Jewish Hospital[a]	Philadelphia	.....	7,425	4,604	3	1/1, 7/1	250
Lankenau Hospital[a]	Philadelphia	C. S. Turville	4,659	2,857	1	7/1	50
†Mount Sinai Hospital[a]	Philadelphia	A. T. Rose	3,771	2,100	3	6/14	100
†Philadelphia General Hospital[a]	Philadelphia	E. M. Kistler	5,477	2,414	4	7/1	75
Presbyterian Hospital[a]	Philadelphia	S. Schotz	4,602	2,809	2	1/1, 7/1	...
Temple University Hospitals[a]	Philadelphia	L. W. Krumperman	15,151	5,222	5	7/1	50
Women's Homeopathic Hospital[a]	Philadelphia	E. P. Van Tine	1,939	538	1	7/1	175
Allegheny General Hospital[a]	Pittsburgh	R. L. Patterson	8,687	3,474	4	7/15	100
Mercy Hospital[a]	Pittsburgh	F. F. Foldes	11,963	4,484	5	7/1	150
Montefiore Hospital[a]	Pittsburgh	I. Greenfield	6,639	3,225	2	7/1	100
St. Francis Hospital[a]	Pittsburgh	G. J. Thomas	4,215	4,643	1	7/1	100
Reading Hospital[a]	Reading	.....	6,721	3,760	4	7/1	100
Robert Packer Hospital[a]	Sayre, Pa.	W. Brehm	6,755	2,760	1	7/1	150
†Christian H. Buhl Hospital	Sharon, Pa.	I. W. Flamberg	5,003	3,904	2	1/1, 7/1	200
Rhode Island Hospital[a]	Providence, R. I.	M. Saklad	9,482	3,844	2	7/1	50

Numerical and other references will be found on page 1215.

2. ANESTHESIOLOGY—Continued

Name of Hospital	Location	Chief of Service	Total Anesthetics	Inhalation Anesthetics	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
Baroness Erlanger Hospital[a1]	Chattanooga, Tenn.		2,766	4,566	..	7/1	75
†John Gaston Hospital[a]	Memphis, Tenn.	L. J. Vernon	7,339	.....	2	7/1	...
Vanderbilt University Hospital[a1]	Nashville, Tenn.	B. H. Robbins	5,146	3,013	2	7/1	35.41
Baylor University Hospital[a1]	Dallas, Texas	E. F. Weir	15,316	5,805	5	7/1	50
†Harris Hospital[a]	Fort Worth, Texas	H. C. Broadhead	8,241	4,875	1	7/1	100
University of Texas Medical Branch Hospitals. John Sealy Hospital[a1]	Galveston, Texas	H. C. Shorum	4,399	2,600	7	1/1, 7/1	50
Hermann Hospital[a1]	Houston, Texas	L. F. Schuhmacher	7,430	1,785	1	7/1	50
University of Utah Affiliated Hospitals [aa]	Salt Lake City		11,985	9,392	3	.....	...
Bishop De Goesbriand Hospital[a]	Burlington, Vt.	J. Abajian	1,880	851	2	1/1	100
Mary Fletcher Hospital[a1]	Burlington, Vt.	J. Abajian	2,297	654	2	7/1	50
†Medical College of Virginia Hospital Division[a]	Richmond, Va.	W. B. Pendleton	11,936	5,674	2	.....	...
King County Hospital, Unit No. 1 (Harborview)[a1, 12]	Seattle, Wash.		5,244	2,197	2	7/1	80
Providence Hospital[a]	Seattle, Wash.	G. A. Dodds	8,353	7,033	3	7/1	100
†Virginia Mason Hospital[a]	Seattle, Wash.	D. C. Moore	5,784	3,095	2	1/1	100
Tacoma General Hospital[a]	Tacoma, Wash.	J. J. Bonica	8,675	4,857	3	7/1	200
State of Wisconsin General Hospital[a]	Madison, Wis.	A. M. MacKay	5,545	4,760	8	1/1, 7/1	25
†Milwaukee County Hospital[a1]	Milwaukee	D. Gatherum	3,307	1,307	2	7/1	175.58
†Mount Sinai Hospital[a]	Milwaukee	W. S. Phillips	3,567	2,583	1	7/1	...

3. CARDIOVASCULAR DISEASE

The following services are approved by the Council and the American Board of Internal Medicine
Hospitals, 19 Assistant Residencies and Residencies, 37

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
United States Army									
Letterman General Hospital[a]	San Francisco	B. E. Pollock	212	427	35	31	1	1/1, 7/1	n
Fitzsimmons General Hospital[a]	Denver, Colo.	E. M. Goyette	780	430	33	23	..	1/1, 7/1	n
Army Medical Center[a15]	Washington, D. C.	J. S. Taylor	260	4,324	8	7	1	7/1	n
United States Navy									
U. S. Naval Hospital[a1]	Bethesda, Md.	R. C. Parker	821	978	79	32	..	.....	n
Veterans Administration									
Veterans Admin. Hospital	Hines, Ill.	L. A. Baker	1,547	.....	173	72	..	1/1, 7/1	n
Nonfederal									
Michael Reese Hospital[a]	Chicago	L. N. Katz	.....	.....	...	...	11	.....	...
Indiana University Medical Center[a]	Indianapolis		.....	1,229	...	...	1	7/1	85
Massachusetts General Hospital[a22]	Boston		.....	.....	...	...	..	.....	...
Henry Ford Hospital[a1]	Detroit	F. J. Smith	1,131	17,149	110	46	3	7/1	200
†Irvington House [a]	Irvington, N. Y.	A. C. DeGraff	100	480	0	0	1	7/1	200
†Mount Sinai Hospital[a]	New York City	G. Baehr	.....	.....	...	...	3	.....	...
†St. Francis Sanatorium for Cardiac Children [a]	Roslyn, L. I., N. Y.	L. M. Taran	255	0	0	2	2	7/1	200
White Cross Hospital[a]	Columbus, Ohio	R. W. Kissane	417	.....	73	17	1	7/1	100
Hospital of the Woman's Medical College of Pennsylvania[a1]	Philadelphia		.....	.....	...	...	..	.....	...
Pennsylvania Hospital[a]	Philadelphia	J. R. Van der Veer	.....	2,951	...	...	2	.....	20
Philadelphia General Hospital[a1]	Philadelphia	T. McMillan	.....	7,206	...	...	5	7/1	75
St. Francis Hospital[a]	Pittsburgh	A. P. D'Zmura	2,056	200	32	28	2	7/1	100
Rhode Island Hospital[a1]	Providence, R. I.	F. B. Cutts	.....	602	...	...	1	7/1	50
University of Texas Medical Branch Hospitals. John Sealy Hospital[a1]	Galveston, Texas	C. T. Stone	1,092	1,343	188	105	..	.....	...

4. CONTAGIOUS DISEASES

The following services are approved by the Council on Medical Education and Hospitals
Hospitals, 14 Assistant Residencies and Residencies, 60

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
Nonfederal									
Children's Hospital[a1]	San Francisco	E. B. Shaw	600	0	25	18	1	7/1	50
Cook County Hospital[a1]	Chicago	H. Leichenger	1,143	.....	41	27	2	1/1, 7/1	32
Municipal Contagious Disease Hospital [a]	Chicago	A. L. Hoyne	2,152	3,486	72	62	6	.....	147.50
Sydenham Hospital	Baltimore		.....	.....	...	...	..	.....	...
Boston City Hospital[a]	Boston	E. H. Place	1,627	.....	22	12	..	.....	...
Massachusetts Memorial Hospitals[a1]	Boston	L. Weinstein	1,409	.....	41	30	6	7/1	50
Belmont Hospital [a]	Worcester, Mass.	W. D. MacDonald	692	0	5	2	2	1/1	125
Herman Kiefer Hospital	Detroit	D. C. Young	1,172	.....	75	50	3	7/1	185
Essex County Hosp. for Contagious Diseases [a]	Belleville, N. J.	E. L. Smith	2,661	.....	32	14	2	1/1, 7/1	155
Kingston Avenue Hospital [a]	Brooklyn	T. Givan	3,458	.....	117	30	9	1/1, 7/1	130
Queens General Hospital[a1]	Jamaica, N. Y.	H. A. Reisman	750	.....	27	10	2	7/1	...
Willard Parker Hospital [a]	New York City	J. F. Landon	4,583	.....	61	30	19	1/1, 7/1	50
†City Hospital[a]	Cleveland	J. A. Toomey	1,446	.....	77	40	4	1/1, 7/1	60
Philadelphia Hosp. for Contagious Diseases [a]	Philadelphia	A. C. LaRozette	2,779	0	73	37	4	1/1	100

Numerical and other references will be found on page 1215.

5. DERMATOLOGY AND SYPHILOLOGY

The following services are approved by the Council and the American Board of Dermatology and Syphilology
Hospitals, 60 Assistant Residencies and Residencies, 235

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Salary (Month)
United States Army										
Letterman General Hospital[a]	San Francisco	R. S. Higdon	287	6,572	2	1	3	1/1, 7/1	2	B
Army Medical Center[a,1]	Washington, D. C.	F. H. Grauer	272	7,031	0	0	6	7/1	3	B
Brooke Army Medical Center[a,1]	San Antonio, Tex.	C. B. White	810	12,932	0	0	6	7/1	2	B
United States Navy										
U. S. Naval Hospital	San Diego, Calif.	L. K. MacClatchie	776	5,541	0	0	4	.....	2	B
U. S. Naval Hospital	St. Albans, N. Y.	C. D. Bell	516	2,060	1	1	6	.....	2	B
U. S. Naval Hospital[a]	Philadelphia	R. L. Gilman	516	4,368	2	0	2	1/1, 7/1	2	B
United States Public Health Service										
U. S. Marine Hospital[a,1]	Stapleton, S. I., N. Y.	B. J. Chester	1,989	20,349	..	..	5	7/1	2	B
Federal Security Agency										
Freedmen's Hospital[a,1]	Washington, D. C.	C. W. Freeman	55	11,708	2	1	1	7/1	2	B
Veterans Administration										
Veterans Admin. Center[a]	Los Angeles	T. H. Sternberg	612	1,186	6	5	5	7/1	2	B
Veterans Admin. Hospital[a]	Van Nuys, Calif.	M. E. Obermayer	103	4,405	0	0	2	.....	2	B
Veterans Admin. Hospital	Hines, Ill.	E. A. Oliver	1,103	.....	10	7	3	1/1, 7/1	2	B
Veterans Admin. Hospital	New Orleans, La.	C. P. Kennedy	177	1,493	0	0	..	7/1	3	B
Veterans Admin. Hospital	Fort Howard, Md.	M. Sullivan	137	100	2	2	4	7/1	3	B
†Veterans Admin. Hospital [1]	Minneapolis	H. E. Michelson	467	350	0	0	3	7/1	3	B
Veterans Admin. Hospital [1]	New York City	J. G. Horkin	507	5,929	4	2	3	1/1	3	B
Veterans Admin. Hospital	Aspinwall, Pa.	S. H. Crawford	304	.....	1	1	..	.....	1	B
Hospital										
Jefferson-Hillman Hospital[a,1]	Birmingham, Ala.	R. Noojin	239	4,651	3	2	3	7/1	3	50
Employees' Hospital of Tennessee Coal, Iron and Railroad Company[a]	Fairfield, Ala.	P. G. Reque	163	12,667	..	..	1	7/1	1	225
Los Angeles County Hospital[a]	Los Angeles	N. P. Anderson	819	17,050	18	5	3	Varies	3	165
White Memorial Hospital[a]	Los Angeles	C. E. Counter	24	22,043	1	0	2	7/1	1	120
Stanford University Hospital[a,1]	San Francisco	O. L. Schmidt	53	9,960	0	0	1	7/1	1	50
University of California Hospital[a,1]	San Francisco	F. A. Torrey	24	7,719	0	0	3	7/1	3	75
University of Colorado Medical Center, Colorado General Hospital[a]	Denver	O. S. Philpott	10	4,287	1	1	1	7/1	1	75
Chicago Intensive Treatment Center [1,2]	Chicago	J. Rodriguez	3,053	15,496	0	0	1	.....	1	179.50
Cook County Hospital[a,1]	Chicago	T. Cornbleet	339	10,179	34	8	2	1/1, 7/1	3	32
Michael Reese Hospital[a,1]	Chicago	E. P. Lieberthal	171	6,618	1	1	1	.....	1	25
Northwestern University Medical Center	Chicago	E. A. Oliver	..	.....	..	..	..	.....	3	..
Research and Educational Hospitals[a,1]	Chicago	F. E. Senar	28	14,458	1	1	1	7/1	3	55
University of Chicago Clinics[a]	Chicago	S. Rothman	138	.....	2	0	8	7/1	3	25
Indianapolis General Hospital[a,1]	Indianapolis	J. Brayton	169	8,441	3	1	3	7/1	3	60
University Hospitals[a,1]	Iowa City	R. Nomland	319	2,869	3	1	3	.....	3	..
University of Kansas Medical Center[a]	Kansas City, Kan.	R. Sutton	61	1,720	..	..	1	7/1	1	100
Charity Hospital of Louisiana[a,1]	New Orleans		403	39,278	1	1	4	7/1	3	25
Johns Hopkins Hospital[a,1]	Baltimore		..	24,727	..	..	..	.....	1	..
University Hospital[a,1]	Baltimore	H. M. Robinson, Sr.	31	27,852	0	0	..	7/1	2	75
Boston City Hospital[a,1]	Boston	J. G. Downing	90	22,541	1	0	2	7/1	2	90
Massachusetts General Hospital[a]	Boston		..	.....	..	..	..	.....	3	..
Massachusetts Memorial Hospitals[a,1]	Boston	J. G. Downing and W. L. Fleming	..	11,486	..	..	1	8/1	1	50
University Hospital[a,1]	Ann Arbor, Mich.	A. C. Curtis	539	9,488	9	9	14	7/1	3	129.60
City of Detroit Receiving Hospital[a,1]	Detroit	L. W. Shaffer	16	6,831	..	..	8	.....	1	..
Minneapolis General Hospital[a]	Minneapolis	C. W. Laymon	563	5,836	1	1	2	1/1, 7/1	3	125
University of Minnesota Hospitals[a,1]	Minneapolis	H. Michaelson	94	5,019	6	6	8	7/1	3	125
Mayo Foundation	Rochester, Minn.	P. A. O'Leary	..	.....	..	..	12	.....	3	92.50
Ancker Hospital[a,1]	St. Paul	J. F. Madden	466	3,867	4	4	2	7/1	3	91.50
Meridian Public Health Treatment Center [2]	Meridian, Miss.		..	.....	..	..	..	.....	3	110
Barnard Free Skin and Cancer Hospital	St. Louis	R. S. Weiss	53	13,257	1	1	2	7/1	3	110
Barnes Hospital[a]	St. Louis		..	.....	..	..	..	.....	3	..
St. Mary's Group of Hospitals[a,1]	St. Louis	G. V. Stryker	119	6,410	..	..	3	7/1	3	85
Mary Hitchcock Memorial Hospital[a]	Hanover, N. H.	W. C. Lobitz, Jr.	121	5,576	1	1	2	7/1	2	150
Kings County Hospital[a,1]	Brooklyn	C. T. Chiaramonte	700	19,865	14	1	2	7/1	1	80
Buffalo General Hospital[a]	Buffalo	E. D. Osborne	..	3,302	..	..	1	7/1	2	50
Edward J. Meyer Memorial Hospital[a,1]	Buffalo	E. D. Osborne	179	9,750	1	..	3	7/1	3	100
Bellevue Hospital, Div. III—N. Y. Univ.[a]	New York City		..	.....	..	..	..	.....	3	..
Columbia-Presbyterian Medical Center[a,1]	New York City	A. B. Cannon	..	33,739	..	..	2	7/1	3	75
Mount Sinai Hospital[a]	New York City	S. M. Peck	..	.....	..	..	1	.....	2	..
New York City Hospital[a,1]	New York City	J. J. Eller	642	9,657	5	1	2	7/1	1	130
New York Hospital[a,1]	New York City	Drs. Lewis and Webster	..	22,320	..	..	1	7/1	3	25
†New York Polyclinic Medical School and Hosp.[a]	New York City	A. C. Cipollaro	26	7,623	1	1	1	7/1	3	50
Roosevelt Hospital[a,1]	New York City	G. C. Andrews	18	10,368	0	0	1	7/1	1	41.67
St. Luke's Hospital[a]	New York City	L. P. Barker	..	11,315	..	..	1	7/1	2	50
University Hospital[a]	New York City	M. Sulzberger	170	100,636	5	2	6	10/1	3	50
Duke Hospital[a,1]	Durham, N. C.	L. Calloway	230	2,710	1	1	3	7/1	3	83.33
Eastern Medical Center [3]	Durham, N. C.		..	.....	..	..	..	.....	1	..
Cincinnati General Hospital[a]	Cincinnati	L. Gohlman	367	7,517	3	1	9	7/1	3	..
City Hospital[a,1]	Cleveland	H. N. Cole, Sr.	908	3,097	4	..	3	7/1	3	60
Cleveland Clinic Hospital [1]	Cleveland	F. W. Netherton	132	20,401	2	2	3	7/1	3	125
University Hospitals[a,1]	Cleveland	H. N. Cole	214	14,176	0	..	3	7/1	3	25
University of Oregon Medical School Hospitals and Clinics[a,1]	Portland, Ore.	L. B. Kingery	35	5,305	2	2	3	7/1	2	75
Graduate Hospital of the University of Pennsylvania[a]	Philadelphia	M. Samitz	53	6,705	2	1	2	7/1	2	..
Hospital of the University of Pennsylvania[a,1]	Philadelphia	D. M. Pillsbury	672	15,155	..	..	22	Varies	3	..
Jefferson Medical College Hospital[a]	Philadelphia	E. F. Carson	94	12,764	2	1	4	.....	2	..
Pennsylvania Hospital[a]	Philadelphia	H. Beerman	..	8,149	..	..	..	.....	1	..
Philadelphia General Hospital[a]	Philadelphia	N. Ingraham	361	10,134	9	1	1	7/1	1	75
Skin and Cancer Hospital	Philadelphia	D. M. Pillsbury and C. S. Wright	425	47,610	3	0	4	Varies	2	50
Pittsburgh Medical Center [3]	Pittsburgh		..	.....	..	..	..	.....	3	..
†Parkland Hospital[a,1]	Dallas, Texas	R. Sheinuire	22	41,357	..	..	2	7/1	1	50
University of Texas Medical Branch Hospitals, John Sealy Hospital[a,1]	Galveston, Texas	C. Livingood	110	6,745	4	3	3	7/1	3	50
University of Virginia Hospital[a]	Charlottesville, Va.	D. C. Smith	304	11,035	4	3	6	7/1	3	..
Medical College of Virginia-Hospital Division[a]	Richmond, Va.	R. Powers	..	8,345	..	..	..	.....	1	..
†State of Wisconsin General Hospital[a,1]	Madison, Wis.	S. A. M. Johnson	218	3,976	3	3	1	1/1, 7/1	1	25

Numerical and other references will be found on page 1215.

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6. GASTROENTEROLOGY

The following services are approved by the Council and the American Board of Internal Medicine

Hospitals, 4 Assistant Residencies and Residencies, 9

Name of Hospital Nonfederal	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
Michael Reese Hospital[1]	Chicago	H. Neehles	...	2,376	..	..	2	.....	...
Lenox Hill Hospital[1]	New York City	H. A. Rafsky	295	1,073	12	2	1	.....	50
Graduate Hospital of the University of Pennsylvania[1]	Philadelphia	.....	...	.....	..	..	..	7/1	...
Hospital of the University of Pennsylvania[1]	Philadelphia	T. Machella	...	3,786	..	..	6	Varies	...

7. GENERAL PRACTICE

The following services are approved by the Council on Medical Education and Hospitals

Hospitals, 32 Assistant Residencies and Residencies, 94

Name of Hospital United States Army	Location	Chief of Service	Inpatients Treated	Deaths	Autopsies	Asst., Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
Madigan General Hospital	Fort Lewis, Wash.	.....	.....	...	..	..	.....	n
United States Navy								
U. S. Naval Hospital[2]	Long Beach, Calif.	.....	.....	...	..	1	.....	n
U. S. Naval Hospital[2]	Chelsea, Mass.	.....	.....	...	..	..	.....	n
U. S. Naval Hospital[2]	Portsmouth, Va.	C. L. Ferguson	14,614	109	83	3	Varies	n
Nonfederal								
Leo N. Levi Memorial Hospital [1]	Hot Springs National Park, Ark.	D. C. Lee	2,275	57	36	3	7/1	200
Monterey County Hospital	Salinas, Calif.	.....	.....	...	..	..	.....	...
St. Francis Hospital	San Francisco	R. R. Webster	11,561	344	68	9	7/1	200
Community Hospital of San Mateo County	San Mateo, Calif.	W. Knorp	3,000	200	72	6	7/1	100
St. Francis Hospital and Sanatorium	Colorado Spgs., Colo.	.....	.....	...	..	..	.....	...
University of Colorado Medical Center, Colorado General Hospital[1]	Denver	R. S. Liggett	.....	...	..	11	7/1	75
Denver General Hospital[1]	Denver	F. Jensen	.....	...	..	11	.....	...
St. Joseph's Hospital [1]	Alton, Ill.	L. Koaza	5,842	170	84	3	7/1	200
St. Francis Hospital [1]	Beech Grove, Ind.	F. P. Jones	1,275	90	28	4	7/1	250
St. Luke's Methodist Hospital[1]	Cedar Rapids, Iowa	A. R. Zuercher	3,645	133	55	4	7/1	200
Broadlawns, Polk County Hospital[1]	Des Moines, Iowa	A. A. Toubes	4,631	313	112	2	7/1	125
St. Anne's Hospital	Fall River, Mass.	.....	.....	...	..	2	7/1	150
Cooley Dickinson Hospital	Northampton, Mass.	.....	6,862	...	..	1	.....	...
Fairview Hospital [1]	Minneapolis	M. Lyne	9,505	197	61	2	1/1, 7/1	200
Missouri Methodist Hospital[2]	St. Joseph, Mo.	I. Rosenthal	3,134	183	43	1	7/1	250
Murray Hospital	Butte, Mont.	R. F. Peterson	3,215	97	45	..	7/1	...
Good Samaritan Hospital[1]	Cincinnati	.....	.....	...	..	..	.....	...
St. Joseph Hospital[1]	Far Rockaway, N. Y.	A. S. Tepper	4,192	130	28	6	.....	150
Albany Hospital[1]	Albany, N. Y.	.....	.....	...	..	..	.....	...
Millard Fillmore Hospital[2]	Buffalo, N. Y.	W. P. Taylor	5,741	3	..	1	7/1	50
Peoples Hospital[2]	Akron, Ohio	.....	.....	...	..	..	.....	...
Brackenridge Hospital[1]	Austin, Texas	.....	6,664	308	127	2	7/1	120
All Saints Hospital	Fort Worth, Texas	H. V. Shelley	5,985	110	46	3	7/1	250
City County Hospital[2]	Fort Worth, Texas	M. Rumph	6,655	329	111	3	7/1	150
St. Mary's Infirmary	Galveston, Texas	E. H. Klatt	7,981	262	137	12	7/1	100
Sheltering Arms Hospital [1]	Richmond, Va.	W. H. Harris, Jr.	16	50	31	2	6/1	100
Providence Hospital[1]	Seattle	B. T. Fitzmaurice	.....	...	..	3	7/1	100
Deaconess Hospital[2]	Spokane	.....	.....	...	..	..	.....	...

8. INTERNAL MEDICINE

The following services are approved by the Council and the American Board of Internal Medicine. Residencies in this specialty have been approved without specifying the number of years for which they are accredited. The Board will give appropriate credit for training in these hospitals on an individual basis.

Hospitals, 528 Assistant Residencies and Residencies, 3,751

Name of Hospital United States Army	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
Letterman General Hospital[2]	San Francisco	J. O. Gillespie	2,033	1,618	61	52	16	1/1, 7/1	n
Fitzsimmons General Hospital[2]	Denver	J. P. Sullivan	3,457	3,152	45	35	21	1/1, 7/1	n
Army Medical Center[2,3]	Washington, D. C.	P. S. Pancher	2,573	36,448	103	93	24	7/1	n
Brooke Army Medical Center [2]	San Antonio, Texas	J. G. Knauer	6,618	14,135	159	129	22	7/1	n
Gorgas Hospital[2]	Ancon, C. Z.	G. M. Stevenson	5,537	22,715	244	151	19	7/1	n
Tripler General Hospital[2]	Moanalua, T. H.	F. H. Mowrey	4,065	12,648	76	64	9	7/1	n
United States Navy									
U. S. Naval Hospital[2]	Long Beach, Calif.	C. L. Andrews	5,662	13,855	227	150	6	Varies	n
U. S. Naval Hospital[2]	Oakland, Calif.	A. B. Higgins	2,456	5,167	219	151	10	.....	n
U. S. Naval Hospital[2]	San Diego, Calif.	E. F. Evans	4,609	10,290	142	116	5	7/1	n
U. S. Naval Hospital[2]	Great Lakes, Ill.	W. H. Schwartz	987	3,892	21	16	3	Varies	n
U. S. Naval Hospital[2]	Bethesda, Md.	I. L. Norman	1,761	225	62	30	11	Varies	n
U. S. Naval Hospital	Chelsea, Mass.	.....	.....	...	..	..	..	.....	n
U. S. Naval Hospital[2]	St. Albans, N. Y.	H. L. Weaver	4,233	4,779	117	89	4	Varies	n
U. S. Naval Hospital[2]	Philadelphia	J. Love	5,563	7,882	229	182	7	1/1, 7/1	n
United States Public Health Service									
U. S. Marine Hospital[2]	San Francisco	R. K. Maddock	2,134	27,078	69	69	6	7/1	n
U. S. Marine Hospital[2]	Chicago	J. G. Telfer	1,989	9,611	39	19	2	7/1	n

Numerical and other references will be found on page 1215.

8. INTERNAL MEDICINE—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
U. S. Marine Hospital*[1]	New Orleans	R. H. Smith	3,169	6,655	80	55	6	7/1	n
U. S. Marine Hospital*[1]	Baltimore	L. L. Terry	2,114	8,137	56	38	7	7/1	n
U. S. Marine Hospital*	Boston	W. S. Baum	2,220	9,124	45	35	3	7/1	n
U. S. Marine Hospital*[1]	Stapleton, S. I., N. Y.	A. A. Doerner	2,676	12,709	81	48	4	7/1	n
U. S. Marine Hospital*[1]	Seattle	R. L. Griffith	2,552	18,323	129	95	6	7/1	n
Federal Security Agency									
Freedmen's Hospital*[1]	Washington, D. C	J. B. Johnson	874	7,650	181	75	7	7/1	n
Veterans Administration									
Veterans Admin. Hospital [1]	Tuskegee, Ala	E. T. Odom	1,912	2,681	73	38	6	7/1	n
Veterans Admin. Center*[1]	Los Angeles	R. O. Egeberg	6,732	18,143	137	107	54	7/1	n
Veterans Admin. Hospital [1]	San Francisco	G. E. Hein	1,877	3,581	96	71	20	7/1	n
Veterans Admin. Hospital*[1]	Van Nuys, Calif	F. W. S. Modern	3,556	25,191	156	134	38	1/1, 7/1	n
Veterans Admin. Hospital [1]	Fort Logan, Colo	T. P. Sears	1,536	0	56	45	16	7/1	n
Veterans Admin. Hospital	Newington, Conn	P. Kunkel	1,607	128	114	84	17	7/1	n
Veterans Admin. Hospital [1]	Washington, D. C	L. K. Alpert	1,325	3,521	80	70	13	7/1	n
Veterans Admin. Hospital	Coral Gables, Fla	J. M. Rumball	2,202	2,511	167	139	12	7/1	n
Veterans Admin. Hospital [1]	Augusta, Ga	J. R. Kaufman	567	318	13	8	4	1/1, 7/1	n
Veterans Admin. Hospital	Chamblee, Ga	M. Michael, Jr.	4,327	143	128	89	14	7/1	n
Veterans Admin. Hospital	Hines, Ill	L. A. Baker	4,374	......	190	103	56	1/1, 7/1	n
†Veterans Admin. Hospital	Indianapolis	W. A. Christian	1,650	......	126	96	10	1/1, 7/1	n
Veterans Admin. Center	Des Moines, Iowa	D. J. Glomset	2,981	......	162	103	12	7/1	n
Veterans Admin. Hospital [1]	Topeka, Kan	R. Chess	2,732	......	75	65	10	7/1	n
Veterans Admin. Center [1]	Wadsworth, Kan	M. Slavin	3,676	......	239	199	15	1/1, 7/1	n
Veterans Admin. Hospital [1]	Wichita, Kan	T. J. Rankin	1,963	......	62	52	8	1/1, 7/1	n
Veterans Admin. Hospital [1]	Louisville, Ky	J. R. Gott, Jr.	3,231	7,904	160	110	28	....	n
Veterans Admin. Hospital [1]	New Orleans	C. A. Jones	1,327	1,782	59	50	16	7/1	n
Veterans Admin. Hospital	Perry Point, Md	S. Goldgraben	969	100	19	15	3	7/1	n
Veterans Admin. Hospital (West Roxbury)	Boston	T. A. Warthin	1,984	1,977	116	81	14	1/1, 7/1	n
Veterans Admin. Hospital [1]	Framingham, Mass	M. B. Strauss	3,886	1,672	117	77	24	7/1	n
Veterans Admin. Hospital	Dearborn, Mich	H. J. Kullman	3,763	10,704	236	148	25	7/1	n
Veterans Admin. Hospital [1]	Minneapolis	R. V. Ebert	3,835	5,470	203	167	32	7/1	n
Veterans Admin. Hospital [1]	Jefferson Bks., Mo	E. D. Wall	3,529	......	248	170	26	7/1	n
Veterans Admin. Hospital	Lincoln, Neb	O. V. Calhoun	911	......	80	45	6	1/1, 7/1	n
Veterans Admin. Hospital	Albuquerque, N. M	W. S. Taylor	455	......	11	10	11	7/1	n
Veterans Admin. Hospital [1]	Batavia, N. Y	J. T. Roberts	1,407	2,007	104	57	10	7/1	n
Veterans Admin. Center	Bath, N. Y	A. S. Dowling	1,908	21,281	129	90	10	1/1, 7/1	n
Veterans Admin. Hospital [1]	New York City	B. Straus	4,275	26,431	443	234	30	7/1	n
Veterans Admin. Hospital [1]	Staten Island, N. Y	A. M. Kleinman	2,190	2,046	149	126	23	1/1, 7/1	n
Veterans Admin. Hospital [1]	Cleveland	N. P. Shumway	3,576	......	216	150	27	7/1	n
Veterans Admin. Center	Dayton, Ohio	A. Tomasulo	2,071	104,818	275	175	27	7/1	n
Veterans Admin. Hospital [1]	Oklahoma City	H. H. Stone	1,274	......	44	32	6	7/1	n
Veterans Admin. Hospital	Portland, Ore	J. H. Mills	2,891	......	151	132	15	1/1, 7/1	n
Veterans Admin. Hospital	Aspinwall, Pa	R. Schwartz	2,300	......	250	148	26	1/1, 7/1	n
Veterans Admin. Hospital	Columbia, S. C	S. L. Zimmerman	3,493	......	205	71	10	....	n
Veterans Admin. Hospital	Memphis, Tenn	J. E. Cottrell	4,921	21,382	158	86	24	7/1	n
Veterans Admin. Hospital	Nashville, Tenn	R. France	.....	......	...	...	20	7/1	n
Veterans Admin. Hospital [1]	Dallas, Texas	C. W. Sensenbach	590	......	43	32	18	1/1	n
Veterans Admin. Hospital [1]	McKinney, Texas	B. Friedman	2,628	......	88	65	20	7/1	n
Veterans Admin. Hospital [1]	Salt Lake City	J. C. Nunemaker	1,482	2,673	72	68	11	7/1	n
Veterans Admin. Center [1]	White River Jct., Vt	A. Yeomans	1,919	13	52	44	9	7/1	n
Veterans Admin. Hospital [1]	Richmond, Va	J. P. Williams	4,553	......	171	95	30	7/1	n
Veterans Admin. Center [1]	Milwaukee	M. W. Garry	2,731	8,748	202	152	26	7/1	n
Nonfederal									
Carraway Methodist Hospital*	Birmingham, Ala	E. D. Lineberry and Dr. McCarn	1,536	5,371	57	21	3	7/1	150
Jefferson-Hillman Hospital*[1]	Birmingham, Ala	W. Riser	3,510	17,292	...	457	11	7/1	50
Employees' Hospital of the Tennessee Coal, Iron and Railroad Company*	Fairfield, Ala	G. M. Hankins	1,908	30,452	159	52	9	7/1	225
City Hospital*	Mobile, Ala	G. O. Segrest	1,337	1,834	155	73	6	7/1	150
St. Joseph's Hospital*	Phoenix, Ariz	R. S. Flinn	1,752	......	78	42	1	7/1	150
St. Mary's Hospital and Sanatorium*[1]	Tucson, Ariz	H. W. Kohl	2,276	604	146	52	3	7/1	175
Tucson Medical Center*[1]	Tucson, Ariz	B. Bloom	2,207	522	73	38	..	....	...
Arkansas Baptist Hospital*[1]	Little Rock, Ark	S. T. Cull	5,304	......	236	37	1	7/1	100
University Hospital*[1]	Little Rock, Ark	B. B. Wells	692	9,000	89	45	8	7/1	75
San Joaquin General Hospital*[1]	French Camp, Calif	G. Wever	2,449	24,349	561	241	4	7/1	230
General Hospital of Fresno County*[1]	Fresno, Calif	K. B. Holmes	1,254	11,646	339	114	3	7/1	210
Glendale Sanitarium and Hospital*	Glendale, Calif	H. J. Hoxie	2,800	......	209	104	4	7/1	160
Seaside Memorial Hospital*[1]	Long Beach, Calif	F. Kellogg	3,034	......	218	54	1	7/1	150
California Hospital*	Los Angeles	W. Wessels	2,413	13,067	255	128	3	7/1	100
Cedars of Lebanon Hospital*[1]	Los Angeles	....	2,809	12,202	298	112	2	7/1	75
Hospital of the Good Samaritan*[1]	Los Angeles	E. R. Ware	3,137	9,025	173	77	4	7/1	150
Los Angeles County Hospital*[1]	Los Angeles	L. T. Bullock	19,006	54,308	2,219	702	23	Varies	165
Queen of Angels Hospital*	Los Angeles	K. Smith	2,184	298	...	103	2	1/15	100
St. Vincent's Hospital*	Los Angeles	J. C. Ruddock	2,014	......	170	67	1	7/1	100
White Memorial Hospital*	Los Angeles	W. E. MacPherson	1,320	28,169	121	61	3	7/1	120
Highland Alameda County Hospital*[1]	Oakland, Calif	H. Rogers	2,511	......	250	188	1	....	135
Permanente Foundation Hospital*[1]	Oakland, Calif	M. F. Collen	1,672	42,545	126	61	..	....	...
Samuel Merritt Hospital	Oakland, Calif	F. B. Taylor	1,141	......	105	48	2	7/1	110
Collis P. and Howard Huntington Memorial Hospital*	Pasadena, Calif	R. F. Webb	1,879	......	199	117	3	7/1	130
Mercy Hospital*	San Diego, Calif	E. M. Fetter	1,304	701	120	29	2	7/1	100
San Diego County General Hospital*[1]	San Diego, Calif	J. M. Rumsey	2,196	13,671	452	210	5	7/1	125
Childrens Hospital*[1]	San Francisco	D. Atkinson	650	2,005	32	14	1	7/1	50
Franklin Hospital*[1]	San Francisco	C. D. Mote	1,784	......	134	57	4	7/1	100
French Hospital*[1]	San Francisco	D. L. Wilbur	1,507	......	173	47	2	7/1	105
Mary's Help Hospital*[1]	San Francisco	F. Roebex	1,338	3,013	93	32	2	7/1	150
Mount Zion Hospital*[1]	San Francisco	A. L. Cohn and J. J. Sampson	1,423	6,083	142	95	4	....	50
St. Joseph's Hospital*[1]	San Francisco	W. W. Port	2,183	100	26	16	1	7/1	200
St. Luke's Hospital*[1]	San Francisco	E. L. Bruck	2,043	2,024	208	75	2	7/1	100
St. Mary's Hospital*[1]	San Francisco	J. J. McGinnis	1,223	3,718	91	30	2	7/1	100
San Francisco Hospital*[1]	San Francisco	....	.....	......	...	...	9	7/1	175
Southern Pacific General Hospital*	San Francisco	R. E. Allen	3,402	......	124	57	5	7/1	...
Stanford University Hospitals*[1]	San Francisco	A. L. Bloomfield	2,147	26,242	126	74	16	7/1	50
University of California Hospital*[1,44]	San Francisco	W. J. Kerr	1,528	31,323	82	65	9	7/1, 9/1	75

Numerical and other references will be found on page 1215.

8. INTERNAL MEDICINE—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Beginning Stipend (Month)
Santa Clara County Hospital*	San Jose, Calif.	H. Brink	1,438	1,522	152	114	4	7/1	235
Fairmont Hospital of Alameda County[1]	San Leandro, Calif.	H. Rogers	1,414	14,555	292	137	5	7/1	145
Santa Barbara Cottage Hospital*[1]	Santa Barbara, Calif.	P. A. Gray	2,475	750	97	53	3	7/1	100
Harbor General Hospital*[1]	Torrance, Calif.	W. P. Martin	2,261	2,137	422	184	8	7/1	165
University of Colorado Medical Center,									
Colorado General Hospital*	Denver	R. S. Liggett	968	12,239	163	114	15	7/1	75
Denver General Hospital*[1,9]	Denver	S. S. Kauvar	2,968	2,319	512	293	5	7/1	75
Mercy Hospital*[1]	Denver	W. Vest	3,860	......	147	52	2	7/1	40
St. Joseph Hospital*	Denver	M. Katzman	1,800	......	127	41	3	7/1	85
Colorado State Hospital[1]	Pueblo, Colo.	G. R. Curless	1,068	2,766	200	118	6	7/1	275
Corwin Hospital*	Pueblo, Colo.	R. H. Finney	1,556	43,003	95	...	2	7/1	75
Bridgeport Hospital*	Bridgeport, Conn.	S. Niekumm	2,012	......	249	90	1	7/1	100
Hartford Hospital*[1]	Hartford, Conn.	G. G. Russell	3,807	9,530	357	202	6	7/1	50
New Britain General Hospital*[1]	New Britain, Conn.	J. C. White	1,450	......	153	79	2	7/1	75
Grace-New Haven Community Hospital,									
Grace Unit*	New Haven, Conn.	T. Evans	933	604	82	35	3	7/1	52
New Haven Unit (University Service)*[1]	New Haven, Conn.	F. G. Blake	2,182	20,774	319	173	4	7/1	40
Hospital of St. Raphael*[1]	New Haven, Conn.	T. Evans	1,750	......	223	30	5	7/1	75
Lawrence and Memorial Associated Hospitals*[1]	New London, Conn.	A. Labensky	1,529	......	151	16	2	7/1	125
Norwalk Hospital*	Norwalk, Conn.	D. L. Ellrich	1,520	1,335	147	40	2	7/1	155
Waterbury Hospital*[1]	Waterbury, Conn.	O. J. Bizzozero	4,503	7,085	194	77	6	7/1	100
Delaware Hospital*	Wilmington, Del.	L. B. Flinn	2,108	3,398	150	87	4	7/1	90
Memorial Hospital*[1]	Wilmington, Del.	L. B. Flinn	1,118	1,583	169	70	3	7/1, 8/1	110
Wilmington General Hospital*	Wilmington, Del.	J. R. Durham, Jr.	1,650	968	91	35	2	7/1	200
Central Dispensary and Emergency Hospital*[1]	Washington, D. C.	J. Minor	1,338	3,904	114	52	5	7/1	50
Doctors Hospital*[1]	Washington, D. C.	A. McNitt	1,898	......	113	79	3	7/1	100
Gallinger Municipal Hospital*[1]	Washington, D. C.	J. F. Fazekas	3,227	2,650	602	269	14	7/1	100
Garfield Memorial Hospital*[1]	Washington, D. C.	......	1,080	3,198	19	17	..	....	...
Georgetown University Hospital*[1,47]	Washington, D. C.	H. Jeghers	2,909	16,508	196	104	23	7/1	25
George Washington University Hospital*[1]	Washington, D. C.	T. McP. Brown	1,273	6,077	29	17	8	7/1	50
Providence Hospital*	Washington, D. C.	H. R. Schreiber and W. P. Argy	1,898	7,441	196	89	4	7/1	75
Duval Medical Center*[1]	Jacksonville, Fla.	L. Limbaugh	1,344	......	206	79	3	7/1	125
Riverside Hospital[1]	Jacksonville, Fla.	T. Z. Cason	824	6,706	26	12	1	7/1	150
Jackson Memorial Hospital*[1]	Miami, Fla.	E. N. McKenzie	3,462	13,285	484	199	12	7/1	60
Orange Memorial Hospital	Orlando, Fla.	......	.....	......	...	...	..	....	...
Crawford W. Long Memorial Hospital*[1]	Atlanta, Ga.	C. P. Roberts	2,118	314	159	69	5	7/1	75
Grady Memorial Hospital*[1]	Atlanta, Ga.	P. B. Beeson	2,295	54,437	413	269	16	7/1	20
Piedmont Hospital*[1]	Atlanta, Ga.	J. E. Paullin	1,119	......	44	23	3	7/1	75
St. Joseph's Infirmary*[1]	Atlanta, Ga.	M. I. Lowance	1,261	1,075	73	26	2	7/1	100
University Hospital*[1]	Augusta, Ga.	V. P. Sydenstricker	2,673	4,455	241	39	7	7/1	40
Emory University Hospital*[1]	Emory University, Ga.	D .F. James	2,106	......	134	69	5	7/1	50
Alexian Brothers Hospital	Chicago	F. B. Lusk	1,528	......	193	74	1	7/1	125
American Hospital*[1]	Chicago	M. Airemow	3,490	15,580	142	51	1	1/1, 7/1	50
Augustana Hospital*	Chicago	C. Hedberg	2,293	1,954	161	90	4	7/1	50
Cook County Hospital*[1]	Chicago	E. F. Foley	18,731	22,460	4,161	655	34	1/1, 7/1	32
Englewood Hospital*	Chicago	W. L. Gregg	1,637	......	150	29	..	3/1	200
Grant Hospital*[1]	Chicago	A. Vanderkloot	1,351	4,355	131	76	1	7/1	100
Henrotin Hospital*[1]	Chicago	F. K. Hick	986	......	51	19	1	7/1	100
Hospital of St. Anthony de Padua*[1]	Chicago	F. L. Foran	1,424	......	145	29	1	7/1	150
Illinois Central Hospital*[1]	Chicago	L. H. Sloan	2,591	16,439	129	26	2	1/1, 10/1	150
Illinois Masonic Hospital*[1]	Chicago	R. H. Hayes	2,370	7,065	252	139	3	1/1, 7/1	50
Loretto Hospital*	Chicago	......	.....	......	...	...	..	....	...
Lutheran Deaconess Home and Hospital*[1]	Chicago	G. O. Solem	1,297	......	168	81	1	7/1	100
Mercy Hospital-Loyola University Clinics*[1]	Chicago	G. O'Brien	2,006	22,997	147	52	6	7/1	25
Michael Reese Hospital*[1,4]	Chicago	J. Golden	2,619	3,006	237	124	8	7/1	25
Mount Sinai Hospital*	Chicago	N. I. Fox	2,635	15,129	277	99	4	7/1	50
Norwegian-American Hospital*[1]	Chicago	M. P. Gethner	1,581	......	151	48	1	7/1	150
Passavant Memorial Hospital*[1]	Chicago	W. H. Nadler	1,736	1,930	71	47	5	7/1	...
Presbyterian Hospital*	Chicago	S. H. Armstrong, Jr.	4,045	22,451	192	122	15	....	25
Provident Hospital*	Chicago	A. F. Connor	730	13,918	104	23	2	7/1	50
Ravenswood Hospital*[1]	Chicago	M. Zeller	1,962	252	129	96	2	7/1, 11/1	60
Research and Educational Hospital*[1]	Chicago	R. W. Keeton	672	25,365	51	49	5	7/1	55
St. Anne's Hospital*[1]	Chicago	S. G. Pliee	1,759	......	198	35	3	7/1	150
St. Elizabeth Hospital*	Chicago	A. E. Luckhardt	2,352	......	162	...	1	....	60
St. Joseph Hospital*	Chicago	L. E. Hines	1,855	......	154	55	2	7/1	75
St. Luke's Hospital*[1]	Chicago	F. E. Ball	3,726	......	233	145	12	7/1	25
University of Chicago Clinics*[1]	Chicago	W. Adams	2,322	27,184	109	80	16	7/1	25
Wesley Memorial Hospital*[1]	Chicago	P. S. Rhodes	3,924	......	171	89	7	7/1	25
Woodlawn Hospital*[1]	Chicago	W. E. Gouwens	836	539	45	38	1	7/1	150
Evanston Hospital*	Evanston, Ill.	L. D. Snorf	1,965	2,382	120	68	8	7/1	50
St. Francis Hospital*[1]	Evanston, Ill.	M. W. Sbertoli	2,954	3,398	240	127	3	7/1	75
Little Company of Mary Hospital*	Evergreen Park, Ill.	W. J. Hagstrom	1,562	......	135	25	..	7/1	100
West Suburban Hospital*	Oak Park, Ill.	F. Tice	1,401	1,254	204	81	2	7/1	150
St. Francis Hospital*[1]	Peoria, Ill.	J. E. McCorvie	2,710	19,763	278	113	2	7/1	100
Clinic Hospital	Bluffton, Ind.	......	.....	......	...	...	..	....	...
Indianapolis General Hospital*[1]	Indianapolis	C. T. Clark	1,831	24,258	344	154	10	7/1	100
Indiana University Medical Center*[1]	Indianapolis	......	1,816	5,824	150	113	6	7/1	68.33
Methodist Hospital*[1]	Indianapolis	R. A. Solomon	2,788	2,150	313	98	4	....	200
Ball Memorial Hospital*[1]	Muncie, Ind.	C. A. Ball	1,087	......	164	50	2	7/1	100
Iowa Methodist Hospital*[1]	Des Moines	J. T. Strawn	2,075	......	171	94	3	7/1	75
University Hospitals*[1]	Iowa City	W. Bean	2,708	1,836	183	126	20	....	...
University of Kansas Medical Center*[1]	Kansas City, Kan.	R. Major	1,390	26,005	119	78	5	7/1	100
St. Francis Hospital*[1]	Wichita, Kan.	J. B. Fisher	3,097	......	176	34	1	7/1	125
Wesley Hospital*[1]	Wichita, Kan.	G. F. Corrigan	2,358	......	124	40	3	7/1	150
Good Samaritan Hospital	Lexington, Ky.	......	.....	......	...	...	..	....	...
St. Joseph Hospital*	Lexington, Ky.	J. W. Scott	1,882	700	160	66	2	7/1	100
Louisville General Hospital*[1]	Louisville, Ky.	J. M. Kinsman	1,517	24,008	335	93	18	7/1	45
St. Joseph Infirmary*	Louisville, Ky.	S. A. Overstreet	2,480	1,572	184	49	5	7/1	75
Charity Hospital of Louisiana*[1]	New Orleans	......	7,712	119,124	949	309	29	7/1	25
Hotel Dieu, Sisters' Hospital*[1]	New Orleans	E. de S. Matthews	2,376	......	168	67	3	7/1	75
Ochsner Foundation Hospital[1]	New Orleans	T. Findley	1,733	24,535	36	27	19	Varies	125
Southern Baptist Hospital*[1]	New Orleans	O. W. Bethea	3,386	......	154	...	2	7/1	150
Touro Infirmary*[1]	New Orleans	W. R. Wirth	2,661	6,895	185	85	6	7/1	17.50
Shreveport Charity Hospital*	Shreveport, La.	M. D. Hargrove	3,188	21,875	272	142	6	7/1	60
Maine General Hospital*[1]	Portland, Me.	E. R. Blaisdell	1,519	2,937	161	77	5	7/1	50
Baltimore City Hospitals*[1]	Baltimore	C. H. Boyd	2,680	......	363	194	13	7/1	15
Church Home and Hospital*[1]	Baltimore	Z. R. Morgan	606	1,050	71	46	2	7/1	45
Franklin Square Hospital*[1]	Baltimore	R. H. Siver	1,314	1,353	63	33	4	7/1	85
Hospital for Women*[1]	Baltimore	W. Fort	678	3,086	35	17	3	7/1	85

Numerical and other references will be found on page 1215.

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8. INTERNAL MEDICINE—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Beginning Stipend (Month)
Johns Hopkins Hospital•[1]	Baltimore	A. M. Harvey	3,209	11,292	265	180	10	7/1	41.66
Maryland General Hospital•[1]	Baltimore	J. E. Legge	1,001	515	121	45	2	7/1	50
Mercy Hospital•[1]	Baltimore	H. R. Peters	1,342	5,303	146	66	5	7/1	50
Provident Hospital and Free Dispensary•	Baltimore	....	366	969	88	36	3	....	100
St. Agnes' Hospital•	Baltimore	L. P. Gundry	1,367	267	91	56	3	7/1	75
St. Joseph's Hospital•[1]	Baltimore	F. J. Geraghty	1,157	1,963	145	43	3	7/1	50
Sinai Hospital•[1]	Baltimore	M. Sherry	1,711	5,377	188	95	8	7/1	25
South Baltimore General Hospital•[1]	Baltimore	G. McLean	980	3,002	83	38	2	7/1	90
Union Memorial Hospital•[1]	Baltimore	R. G. Hills	1,706	2,115	182	96	6	....	...
University Hospital•[1]	Baltimore	T. N. Carey	1,384	8,977	108	68	5	7/1	75
West Baltimore General Hospital•[1]	Baltimore	L. A. M. Krause	1,256	484	130	75	6	7/1	60
Beverly Hospital•	Beverly, Mass.	A. E. Parkhurst	1,770	1,093	91	64	1	7/1	100
Beth Israel Hospital•	Boston	H. Blumgart	1,872	15,671	149	95	6	7/1	41.66
Boston City Hospital•[1]	Boston	....	12,133	38,271	1,834	647	51	7/1	90
Carney Hospital•	Boston	N. A. Welch	651	3,234	64	32	2	7/1	50
Faulkner Hospital•[1]	Boston	J. A. Halsted	828	......	63	42	2	7/1	50
Lahey Clinic[1]	Boston	F. N. Allen	4,276	96,884	89	43	32	Varies	90
Massachusetts General Hospital•	Boston	....	.....	......	...	...	..	....	...
Massachusetts Memorial Hospitals•[1]	Boston	C. S. Keefer	1,610	5,641	145	74	13	7/1	50
New England Center Hospital[1,38]	Boston	S. Proger	4,628	6,430	51	32	29	7/1	83.33
New England Deaconess Hospital	Boston	H. F. Root	2,873	16,397	98	60	5	7/1	150
Peter Bent Brigham Hospital•[1]	Boston	G. W. Thorn	2,370	23,611	200	132	16	7/1	...
Cambridge City Hospital•	Cambridge, Mass.	J. M. Flynn	1,529	6,904	224	75	3	7/1	75
Mount Auburn Hospital•[1]	Cambridge, Mass.	J. H. Townsend	1,069	2,807	139	63	3	7/1	50
Truesdale Hospital•[1]	Fall River, Mass.	W. Mason	783	......	85	35	..	1/1, 7/1	75
Malden Hospital	Malden, Mass.	E. G. Thorp	.....	......	...	...	3	7/1	50
Cooley Dickinson Hospital[1]	Northampton, Mass.	L. N. Durgin	3,185	31	171	48	2	7/1	50
Salem Hospital•[1]	Salem, Mass.	S. N. Gardner	1,277	307	184	40	1	7/1	50
Springfield Hospital•[1]	Springfield, Mass.	R. L. Barrett	1,787	5,002	174	68	6	7/1	50
Memorial Hospital•	Worcester, Mass.	O. H. Stansfield	1,764	......	155	62	2	7/1	100
St. Vincent Hospital•	Worcester, Mass.	J. J. Dumphy	2,132	......	174	64	2	7/1	41.67
Newton-Wellesley Hospital•[1]	Newton-Lower Falls, Mass.	....	.....	......	...	...	..	....	...
Worcester City Hospital•[1]	Worcester, Mass.	....	2,027	......	351	143	5	7/1	100
St. Joseph's Mercy Hospital•[1]	Ann Arbor, Mich.	M. Marshall	1,695	......	114	52	4	7/1	125
University Hospital•[1]	Ann Arbor, Mich.	C. C. Sturgis	4,027	19,490	178	127	42	7/1	139.60
Alexander Blain Hospital	Detroit	H. L. Woodburne	1,169	14,104	29	13	2	7/1	100
Charles Godwin Jennings Hospital•[1]	Detroit	E. K. Carmichael	146	......	1	1	2	7/1	250
City of Detroit Receiving Hospital•[1]	Detroit	G. B. Myers	3,191	21,858	704	349	21	7/1	180.08
Detroit Memorial Hospital•	Detroit	....	.....	......	...	...	..	....	...
Evangelical Deaconess Hospital•	Detroit	....	.....	......	...	...	..	....	...
Grace Hospital•[1]	Detroit	L. T. Colvin	4,651	......	356	124	10	7/1	75
Harper Hospital•[1]	Detroit	R. C. Moehlig	2,722	18,009	196	57	10	7/1	110
Henry Ford Hospital•[1]	Detroit	F. J. Sladen	5,769	128,444	234	96	55	7/1	200
Mt. Carmel Mercy Hospital•[1]	Detroit	H. L. Smith	2,093	......	292	88	8	7/1	150
Providence Hospital•	Detroit	W. P. Chester	1,395	......	153	65	5	....	140
Woman's Hospital•[1]	Detroit	B. I. Johnstone	672	......	59	15	1	7/1	165
Wayne County General Hospital and Infirmary•[1]	Eloise, Mich.	M. R. McQuiggan	8,823	64,023	833	254	12	7/1	235
Hurley Hospital•[1]	Flint, Mich.	M. S. Chambers	3,082	......	304	91	5	7/1	135
Blodgett Memorial Hospital•[1]	Grand Rapids, Mich.	N. L. Avery	1,025	......	79	41	3	7/1	200
Butterworth Hospital•[1]	Grand Rapids, Mich.	L. P. Ralph	1,466	1,039	175	101	3	7/1	100
St. Mary's Hospital•[1]	Grand Rapids, Mich.	....	.....	......	...	...	..	....	...
Highland Park General Hospital•[1]	Highland Park, Mich.	L. T. Crane	986	806	35	17	3	7/1	150
Bronson Methodist Hospital•[1]	Kalamazoo, Mich.	J. V. Fopeano	828	914	72	44	3	7/1	150
†Pontiac General Hospital•[1]	Pontiac, Mich.	D. Smith	2,158	1,675	155	72	3	7/1	75
Saginaw General Hospital•[1]	Saginaw, Mich.	B. M. Bullington	1,847	972	72	40	5	7/1	85
Asbury Hospital•[1]	Minneapolis	D. P. Head	1,066	......	108	44	2	1/1	150
Minneapolis General Hospital•[1]	Minneapolis	G. E. Fahr	2,187	12,172	361	182	7	1/1, 7/1	125
Northwestern Hospital•[1]	Minneapolis	H. L. Ulrich	2,240	......	111	62	3	7/1	150
St. Barnabas Hospital•[1]	Minneapolis	N. Nelson	1,834	......	130	82	..	....	125
University of Minnesota Hospitals•[1]	Minneapolis	C. J. Watson	1,064	24,174	135	110	25	7/1	125
Mayo Foundation	Rochester, Minn.	R. M. Wilder	.....	......	...	...	168	....	92.50
Ancker Hospital•[1]	St. Paul	C. B. Drake	2,650	13,241	251	170	9	7/1	91.50
Charles T. Miller Hospital•[1]	St. Paul	E. T. Richards and C. N. Hensel	1,577	15,217	92	51	4	7/1	115
St. Joseph's Hospital•[1]	St. Paul	H. Richardson	1,631	449	108	46	2	9/1	125
St. Louis County Hospital•	Clayton, Mo.	R. Muether	1,430	16,705	221	129	6	7/1	80
Kansas City General Hospital No. 1•	Kansas City, Mo.	D. A. Williams	2,677	24,841	429	278	12	7/1	50
Menorah Hospital•[1]	Kansas City, Mo.	A. M. Ginsberg	1,454	......	80	34	1	7/1	125
Research Hospital•[1]	Kansas City, Mo.	R. C. Davis	2,281	3,940	174	90	3	7/1	100
St. Joseph Hospital•	Kansas City, Mo.	D. A. Williams	3,206	800	171	107	2	7/1	150
St. Luke's Hospital•[1]	Kansas City, Mo.	J. Danglade	3,469	3,705	145	112	2	7/1	75
St. Mary's Hospital•[1]	Kansas City, Mo.	H. M. Parker	1,084	......	107	56	1	7/1	125
Barnes Hospital•[1]	St. Louis	W. B. Wood	4,651	37,361	217	168	36	7/1	25
De Paul Hospital•[1]	St. Louis	E. P. Buddy	1,706	1,133	162	35	3	7/1	90
Homer G. Phillips Hospital•[1]	St. Louis	R. J. Glaser	2,761	20,338	558	92	10	7/1	98
Jewish Hospital•[1]	St. Louis	A. E. Strauss	3,079	8,640	238	90	6	7/1	50
Missouri Baptist Hospital•[1]	St. Louis	J. R. Nakada	2,204	......	200	49	4	7/1	70
Missouri Pacific Hospital	St. Louis	L. B. Harrison	.....	......	...	...	..	....	...
St. Anthony's Hospital•[1]	St. Louis	R. V. Powell	2,051	......	97	49	1	7/1	150
St. John's Hospital•	St. Louis	C. H. Neilson	2,372	383	209	99	4	7/1	85
St. Louis City Hospital•[1]	St. Louis	B. Taussig and W. A. Knight	3,307	......	559	223	13	7/1	...
St. Luke's Hospital•	St. Louis	W. G. Becke	1,221	4,694	126	58	3	7/1	75
St. Mary's Group of Hospitals•[1]	St. Louis	R. A. Kinsella	2,842	24,556	239	95	16	7/1	35
Montana Deaconess Hospital	Great Falls, Mont.	F. R. Schemm	1,820	1,307	100	79	3	7/1	200
Creighton Memorial-St. Joseph's Hospital•	Omaha	A. Sachs	2,565	10,777	216	69	3	7/1	100
University of Nebraska Hospital•[1,51]	Omaha	H. C. Lueth	695	3,201	32	27	7	7/1	75
Mary Hitchcock Memorial Hospital•[1]	Hanover, N. H.	S. M. Gundersen	1,275	16,162	65	42	3	7/1	150
Atlantic City Hospital•	Atlantic City, N. J.	D. W. Scanlan	1,080	2,425	76	21	2	7/1	50
Englewood Hospital•[1]	Englewood, N. J.	W. W. Schmidt	843	1,190	147	45	1	7/1	100
Hackensack Hospital•[1]	Hackensack, N. J.	L. W. Black	1,923	6,085	263	...	6	7/1	125
Jersey City Hospital•	Jersey City, N. J.	T. J. White	8,111	31,787	1,046	253	11	Varies	35
Monmouth Memorial Hospital•[1]	Long Branch, N. J.	F. J. Altschul	1,694	1,083	265	80	2	7/1	150
Mountainside Hospital•[1]	Montclair, N. J.	H. M. Ewing	2,280	6,309	213	88	1	7/1	100.74
Burlington County Hospital	Mount Holly, N. J.	P. S. MacNeal	529	430	78	42	1	7/1	100
Fitkin Memorial Hospital•	Neptune, N. J.	L. F. Albright	1,067	1,072	173	31	..	....	...
Newark Beth Israel Hospital•	Newark, N. J.	H. Goldberg	1,617	7,931	233	79	3	7/1	50

Numerical and other references will be found on page 1215.

8. INTERNAL MEDICINE—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered*	Beginning of Service (Date)	Beginning Stipend (Month)
Newark City Hospital[a]	Newark, N. J.	.....	.....	.....	...	...	..	.....	...
St. Peter's General Hospital[a]	New Brunswick, N. J.	.....	.....	.....	...	...	..	.....	...
Orange Memorial Hospital[a]	Orange, N. J.	D. W. Marquis	1,720	10,912	116	64	1	7/1	100
Paterson General Hospital[a]	Paterson, N. J.	J. E. Leach	914	622	146	35	2	7/1	75
St. Francis Hospital[a]	Trenton, N. J.	P. Corrigan	1,756	853	212	57	2	7/1	100
Albany Hospital[a]	Albany, N. Y.	H. T. Beete	1,897	7,494	217	104	6	7/1	41.66
Binghamton City Hospital[a]	Binghamton, N. Y.	S. A. Mazar	3,623	11,404	258	91	7	7/1	...
Beth El Hospital[a]	Brooklyn	I. Feder	740	14,653	110	38	2	7/1	83
Brooklyn Hospital[a]	Brooklyn	E. P. Maynard, Jr.	1,878	16,841	144	39	4	7/1	25
Coney Island Hospital[a]	Brooklyn	T. J. Longo	1,451	25,735	315	69	4	7/1	80
Cumberland Hospital[a]	Brooklyn	J. J. Guttman	2,098	25,974	336	70	4	7/1	80
Greenpoint Hospital[a]	Brooklyn	A. Klein	1,578	18,540	299	42	3	7/1	80
Jewish Hospital[a]	Brooklyn	G. Kornfeld and L. Loewe	1,909	22,048	201	58	4	7/1	55
Kings County Hospital[a]	Brooklyn	W. Dock and R. Feinblatt	14,608	25,709	2,329	374	20	1/1, 7/1	80
Long Island College Hospital[a]	Brooklyn	J. H. Crawford	1,247	5,060	132	44	5	7/1	50
Maimonides Hospital[a]	Brooklyn	D. R. Siegal	2,077	21,458	209	94	9	7/1	75
Methodist Hospital[a]	Brooklyn	I. L. Cabot, Sr.	1,586	6,798	178	56	3	7/1	25
Norwegian Lutheran Deaconesses' Home and Hospital[a]	Brooklyn	W. F. Beyer and A. Andersen	997	1,169	89	40	2	7/1	50
St. Catherine's Hospital[a]	Brooklyn	W. Anello and M. A. Murphy	1,027	3,710	163	49	3	7/1	75
St. John's Hospital[a]	Brooklyn	L. B. Ackerson	1,342	3,140	90	32	1	7/1	75
St. Mary's Hospital[a]	Brooklyn	H. F. Beakey	843	4,870	91	26	1	7/1	100
Buffalo General Hospital[a]	Buffalo	J. H. Talbott	2,319	15,847	219	92	11	7/1	25
Deaconess Hospital[a]	Buffalo	M. S. Howland	2,178	1,118	240	88	2	7/1	100
Edward J. Meyer Memorial Hospital[a]	Buffalo	D. K. Miller	3,307	11,804	418	107	14	7/1	100
Emergency Hospital of the Sisters of Charity	Buffalo	D. Blumberg	1,220	4,846	137	37	1	7/1	150
Millard Fillmore Hospital[a]	Buffalo	J. F. Painton	2,605	823	185	85	7	7/1	50
Clifton Springs Sanitarium and Clinic[1]	Clifton Springs, N. Y.	B. A. Watson	2,059	4,276	44	38	3	.....	50
Mary Imogene Bassett Hospital[a]	Cooperstown, N. Y.	J. Bordley, III	702	4,208	45	24	4	7/1	83.33
†Flushing Hospital and Dispensary[a]	Flushing, N. Y.	D. J. Swan	1,982	7,259	213	61	1	7/1	100
Meadowbrook Hospital[a]	Hempstead, N. Y.	E. C. Jessup and B. R. Allison	1,468	.....	180	68	2	7/1	154
Cornell University Infirmary[a]	Ithaca, N. Y.	N. S. Moore	2,610	1,150	92	30	2	7/1	208.33
Queens General Hospital[a]	Jamaica, N. Y.	J. R. Reuling	4,771	69,244	1,059	429	10	7/1	...
Charles S. Wilson Memorial Hospital[a]	Johnson City, N. Y.	J. C. Zillhardt	2,641	.....	231	96	4	7/1	125
Mount Vernon Hospital[a]	Mount Vernon, N. Y.	P. Reznikoff	1,723	876	174	72	3	7/1	125
New Rochelle Hospital[a]	New Rochelle, N. Y.	W. Meredith	.....	.....	...	...	3	7/1	125
Bellevue Hospital, Div. I—Columbia University[a]	New York City	D. W. Richards, Jr.	2,454	19,830	275	84	7	7/1	70
Bellevue Hospital, Div. II—Cornell University[a]	New York City	J. J. Smith	1,922	25,460	192	...	6	7/1	80
Bellevue Hospital, Div. III—New York University[a]	New York City	W. S. Tillet	2,528	10,497	271	82	15	1/1, 7/1	80
Bellevue Hospital, Div. IV—Open Division	New York City	R. F. Wilkinson	1,142	13,157	276	74	22	1/1, 7/1	80
Beth Israel Hospital[a, 2]	New York City	A. M. Fishberg	1,238	13,647	119	54	4	7/1	50
Bronx Hospital[a]	New York City	H. Wessler	2,180	31,235	169	61	5	7/1	75
Lebanon Hospital[a]	New York City	.....	.....	.....	...	...	...	7/1	100
Flower and Fifth Avenue Hospitals[a]	New York City	L. J. Boyd	1,117	4,184	92	23	2	7/1	...
Fordham Hospital[a]	New York City	J. S. Kenney and E. Fruchtich	4,015	18,583	1,008	173	9	7/1	80
Goldwater Memorial Hospital[a]	New York City	M. Rosenbluth and R. D. Beck	1,700	1,432	235	132	30	7/1	70
Gouverneur Hospital[a]	New York City	J. P. Crowe	953	29,983	339	47	5	7/1	80
Harlem Hospital[a]	New York City	R. P. Stiverman	3,923	73,251	634	76	9	7/1	80
Hospital for Joint Diseases[a]	New York City	M. Vorhaus and M. Dinnerstein	500	22,002	55	24	2	7/1	60
Jewish Memorial Hospital[a]	New York City	D. Greenberg and M. A. Miller	1,386	3,761	125	60	1	7/1	100
Lenox Hill Hospital[a]	New York City	C. F. de la Chapelle and A. L. Garbat	1,267	9,656	104	42	2	Varies	50
Lincoln Hospital[a]	New York City	S. Johnson	2,533	52,562	640	131	14	7/1	50
Memorial Hospital[a]	New York City	L. F. Craver and R. W. Rawson	551	18,416	107	78	11	1/1, 7/1	15
Metropolitan Hospital[a]	New York City	L. J. Boyd	3,267	44,804	502	107	11	7/1	80
Montefiore Hospital for Chronic Diseases[a]	New York City	L. Leiter	1,042	.....	214	103	9	1/1, 7/1	50
Morrisania City Hospital[a]	New York City	F. Flood and K. Bilson	3,908	9,049	873	145	11	7/1	80
Mount Sinai Hospital[a]	New York City	G. Baehr and I. Snapper	4,827	8,457	383	148	16	7/1	50
New York City Hospital[a]	New York City	B. Donaldson and W. Mechle	3,661	32,011	497	122	6	7/1	80
New York Hospital[a, 3]	New York City	D. P. Barr	1,812	11,786	119	99	20	7/1	25
New York Infirmary[a]	New York City	M. E. Manter	604	2,244	11	6	1	7/1	75
New York Polyclinic Medical School and Hospital[a]	New York City	J. Carroll	1,745	5,662	110	31	2	7/1	50
Presbyterian Hospital[a]	New York City	R. F. Loeb	5,672	96,117	271	...	16	7/1	41.66
Roosevelt Hospital[a]	New York City	H. F. Shattuck and J. M. Preston	2,512	9,635	284	103	11	7/1	25
St. Barnabas Hospital for Chronic Diseases[1]	New York City	A. J. Patek, Jr.	413	2,600	65	37	2	7/1	75
St. Clare's Hospital[a]	New York City	J. P. Crowe	2,373	14,017	197	63	9	7/1	33
St. Francis Hospital[a]	New York City	C. G. Hertzmann	1,329	.....	186	39	2	1/1, 7/1	75
St. Luke's Hospital[a]	New York City	J. H. Keating	3,694	39,503	396	99	16	7/1	50
St. Vincent's Hospital[a]	New York City	F. W. Baldwin	2,472	19,730	367	146	13	7/1	50
Sydenham Hospital[a]	New York City	E. Appleboum	740	3,592	71	19	2	7/1	150
University Hospital[a]	New York City	C. F. Wilkinson, Jr.	1,549	21,076	190	41	4	7/1	80
Genesee Hospital[a]	Rochester, N. Y.	C. Bolter	1,248	3,575	102	60	5	7/1	50
Highland Hospital[a]	Rochester, N. Y.	E. Sable	.....	.....	...	...	3	7/1	100
Rochester General Hospital[a]	Rochester, N. Y.	L. F. Allen	1,728	5,561	189	69	4	7/1	55
St. Mary's Hospital[a]	Rochester, N. Y.	J. F. La Palm	2,274	5,805	243	79	7	7/1	125
Strong Memorial—Rochester Municipal Hospitals[a]	Rochester, N. Y.	W. S. McCann	4,250	19,402	415	263	16	7/1	41.66
Pilgrim Hospital[a]	Schenectady, N. Y.	H. F. Reynolds	2,921	.....	257	130	2	7/1	100
St. Vincent's Hospital[a]	Staten Island, N. Y.	H. A. Cochrane	1,549	2,649	175	37	3	7/1	100
Hospital of the Good Shepherd[a]	Syracuse, N. Y.	R. Lyons	1,314	167	148	64	10	7/1	125
Grasslands Hospital[a]	Valhalla, N. Y.	H. Hellner	607	9,664	145	67	4	7/1	125
White Plains Hospital[a]	White Plains, N. Y.	E. W. Weber	1,549	2,630	39	39	2	7/1	75

Numerical and other references will be found on page 1215.

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8. INTERNAL MEDICINE—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered *	Beginning of Service (1956)	Beginning Stipend (Month)
Charlotte Memorial Hospital[a]	Charlotte, N. C.	R. E. Query, Jr.	1,804	3,613	118	75	2	7/1	60
Duke Hospital[a]	Durham, N. C.	E. A. Stead	3,586	17,328	176	113	26	7/1	83.33
Watts Hospital[a]	Durham, N. C.	W. R. Stanford	2,802	6,061	122	46	4	7/1	50
James Walker Memorial Hospital[a]	Wilmington, N. C.	S. E. Warshauer	2,072	6,548	124	28	2	7/1	125
City Memorial Hospital [1]	Winston-Salem, N. C.	J. P. Davis	1,421	2,363	115	36	2	7/1	150
Kate Bitting Reynolds Memorial Hospital[a]	Winston-Salem, N. C.	R. L. Smith	1,597	3,040	134	37	1	7/1	150
North Carolina Baptist Hospital[a]	Winston-Salem, N. C.	G. T. Harrell	1,750	10,000	84	54	24	7/1	41.66
Bismarck Hospital	Bismarck, N. D.	C. H. Peters	1,557	65,356	96	20	1	.....	300
St. Luke's Hospital[a]	Fargo, N. D.	A. C. Fortney	928	.....	82	30	2	7/1	150
Trinity Hospital[a]	Minot, N. D.	P. H. Rowe	946	13,630	70	35	2	1/1	150
City Hospital[a]	Akron, Ohio	.....	4,140	4,778	300	143	4	7/1	100
Peoples Hospital[a]	Akron, Ohio	R. F. Jukes	1,648	4,352	110	57	5	7/1	100
St. Thomas Hospital[a]	Akron, Ohio	W. Pittenger	2,113	2,623	141	67	1	.....	125
Aultman Hospital[a]	Canton, Ohio	R. E. Tschantz	4,241	611	206	123	4	7/1	75
Mercy Hospital[a]	Canton, Ohio	I. B. Hamilton	1,770	574	171	52	3	7/1	100
Christ Hospital[a]	Cincinnati	W. O. Ramey	1,589	6,382	166	72	4	7/1	90
Cincinnati General Hospital[a]	Cincinnati	M. A. Blankenhorn	2,107	36,380	261	200	29	7/1	...
Deaconess Hospital[a]	Cincinnati	L. B. Owens	3,579	.....	143	28	2	7/1	125
Good Samaritan Hospital[a]	Cincinnati	G. C. Bishop	4,863	6,616	228	173	7	7/1	105
Jewish Hospital[a]	Cincinnati	R. C. Rothenberg	2,432	1,300	248	150	8	7/1	60
City Hospital[a]	Cleveland	R. W. Scott	2,849	28,202	549	203	18	7/1	60
Cleveland Clinic Hospital [1]	Cleveland	A. C. Ernstene	.....	30,741	52	23	25	7/1	125
Fairview Park Hospital[a]	Cleveland	H. C. King	1,349	412	110	37	2	7/1	100
Lutheran Hospital[a]	Cleveland	.....	.....	.....	.....	.....	.....	.....	...
Mount Sinai Hospital[a]	Cleveland	H. Feil	1,020	8,717	138	62	2	7/1	100
St. Alexis Hospital[a]	Cleveland	J. M. Paryzek	3,044	3,356	191	44	2	7/1	100
St. John's Hospital[a]	Cleveland	C. E. Steyer	1,224	1,002	152	57	4	7/1	100
St. Luke's Hospital[a]	Cleveland	L. Taylor	3,265	18,969	249	106	5	6/25	60
St. Vincent Charity Hospital[a]	Cleveland	C. S. Stone	2,547	19,157	91	26	4	7/1	50
University Hospitals[a]	Cleveland	J. T. Wearn	3,868	15,863	348	....	23	7/1	25
Mount Carmel Hospital[a]	Columbus, Ohio	W. Kuhe	1,196	439	109	66	5	7/1	135
Ohio State University Hospitals[a] [2]	Columbus, Ohio	B. K. Wiseman	1,861	21,465	198	159	15	7/1	50
White Cross Hospital[a]	Columbus, Ohio	W. F. Millhon	1,086	.....	111	67	2	7/1	100
Miami Valley Hospital[a]	Dayton, Ohio	H. F. Koppe	2,497	.....	276	179	3	7/1	75
Huron Road Hospital[a]	East Cleveland, Ohio	F. A. Marshall	1,222	.....	157	68	3	7/1	75
Lakewood Hospital[a]	Lakewood, Ohio	J. T. Ledman	1,785	1,601	125	53	1	7/1	100
Maumee Valley Hospital[a]	Toledo, Ohio	J. L. Kobacker	1,380	5,443	257	129	4	7/1	125
Mercy Hospital[a]	Toledo, Ohio	N. Morris and G. W. Bascom	3,134	1,080	213	86	1	7/1	125
St. Vincent's Hospital[a]	Toledo, Ohio	C. J. Czarnecki	2,101	1,750	189	54	2	7/1	...
Toledo Hospital[a]	Toledo, Ohio	J. L. Stifel	1,749	1,532	139	72	4	7/1	100
St. Elizabeth's Hospital[a]	Youngstown, Ohio	M. Neiditz	2,468	900	265	102	2	7/1	115
Youngstown Hospital[a]	Youngstown, Ohio	W. H. Bunn	3,221	587	215	113	9	7/1	75
St. Anthony Hospital[a]	Oklahoma City	J. McNeill	1,440	1,241	108	67	2	7/1	75
University Hospitals[a]	Oklahoma City	R. Q. Goodwin	930	11,270	104	42	4	7/1	35
Wesley Hospital[a]	Oklahoma City	D. D. Paulus	1,706	740	148	73	1	7/1	150
Hillcrest Memorial Hospital[a]	Tulsa, Okla	H. W. Ford	1,982	.....	157	40	1	7/1	75
St. John's Hospital[a]	Tulsa, Okla	S. Goodman	2,782	.....	198	78	1	7/1	150
Emanuel Hospital[a]	Portland, Ore	J. McCutchan	1,751	.....	187	100	3	7/1	75
Good Samaritan Hospital[a]	Portland, Ore	E. D. DuBois	2,981	.....	179	89	1	7/1	75
Providence Hospital[a]	Portland, Ore	J. Krygier	2,041	.....	204	102	2	7/1	75
St. Vincent's Hospital[a]	Portland, Ore	I. C. Brill	3,377	.....	217	78	3	7/1	75
University of Oregon Medical School Hospitals and Clinics[a]	Portland, Ore	H. P. Lewis	1,342	17,970	270	195	6	7/1	75
Abington Memorial Hospital[a]	Abington, Pa	J. T. Beardwood, Jr.	1,959	3,300	201	80	2	7/1	50
Sacred Heart Hospital[a]	Allentown, Pa	A. W. Dubbs	2,039	4,964	217	75	1	7/1	150
Bryn Mawr Hospital[a]	Bryn Mawr, Pa	W. W. Dyer	391	.....	59	30	2	7/1	75
George F. Geisinger Memorial Hospital[a]	Danville, Pa	W. J. Stainsby	2,454	13,417	132	54	3	7/1	75
Hamot Hospital[a]	Erie, Pa	T. P. Tredway	902	473	90	47	1	7/1	150
Westmoreland Hospital[a]	Greensburg, Pa	W. M. Bortz	1,275	1,054	121	51	1	7/1	150
Harrisburg Hospital[a]	Harrisburg, Pa	F. D. Reckord	1,771	4,217	231	140	2	1/1, 7/1	150
Harrisburg Polyclinic Hospital[a]	Harrisburg, Pa	A. W. Cowley	1,487	1,822	102	64	1	10/1	150
Episcopal Hospital[a]	Philadelphia	S. R. Vogel and F. Manlove	1,492	5,450	197	80	3	.....	...
Germantown Dispensary and Hospital[a]	Philadelphia	C. C. Wa't, Jr. and R. L. Langdon	1,427	5,749	151	61	2	7/1	50
Graduate Hospital of the University of Pennsylvania[a]	Philadelphia	H. L. Bockus	1,398	10,023	82	46	5	7/1	...
Hahnemann Hospital[a]	Philadelphia	C. L. Brown	2,352	22,162	208	137	5	6/1	70
Hospital of the University of Pennsylvania[a]	Philadelphia	F. C. Wood	3,244	10,478	174	113	30	Varies	...
Hospital of the Woman's Medical College of Pennsylvania[a]	Philadelphia	W. G. Leaman	840	6,005	69	26	3	7/1	60
Jefferson Medical College Hospital[a]	Philadelphia	H. A. Reimann	3,088	41,250	228	132	11	7/1	...
Jewish Hospital[a]	Philadelphia	.....	2,272	.....	280	116	6	7/1	50
Lankenau Hospital[a]	Philadelphia	F. L. Bertz and F. H. Hartmann	1,616	1,486	158	94	2	7/1	50
Mount Sinai Hospital[a]	Philadelphia	A. I. Rubenstone	1,753	15,756	166	116	4	7/1	50
Pennsylvania Hospital[a]	Philadelphia	G. G. Duncan	2,286	7,139	254	106	9	.....	50
Philadelphia General Hospital[a]	Philadelphia	D. W. Kramer	4,846	20,885	1,079	640	20	7/1	75
Presbyterian Hospital[a]	Philadelphia	Dr. Klein	1,220	1,827	135	96	2	.....	25
Temple University Hospitals[a]	Philadelphia	R. A. Kern	2,523	10,867	195	93	10	7/1	50
Woman's Hospital[a]	Philadelphia	Dr. Easby	613	4,984	24	16	1	7/1	50
Allegheny General Hospital[a]	Pittsburgh	C. W. Fiklin	437	4,706	63	21	3	7/15	100
Elizabeth Steel Magee Hospital [1]	Pittsburgh	J. D. Heard	1,301	256	104	30	4	7/1	41.67
Mercy Hospital[a]	Pittsburgh	W. W. G. Maclachlan	2,072	5,884	136	29	3	7/1	100
Montefiore Hospital[a]	Pittsburgh	L. H. Crisp and L. Wechsler	1,614	4,858	201	89	6	7/1	50
Presbyterian Hospital[a]	Pittsburgh	A. H. Cubeen	1,739	6,650	125	35	6	7/1	41.67
St. Francis Hospital[a]	Pittsburgh	L. A. Gregg	2,052	6,582	198	51	2	7/1	100
Western Pennsylvania Hospital	Pittsburgh	F. A. Evans	3,400	4,679	341	98	3	7/1	100
Reading Hospital[a]	Reading, Pa	R. M. Alexander	1,284	1,005	245	138	3	7/1	100
St. Joseph's Hospital[a]	Reading, Pa	Dr. Wasserweig	1,377	353	202	70	1	7/1	100
Robert Packer Hospital[a]	Sayre, Pa	S. D. Conklin	3,016	21,456	114	75	7	7/1	150
Scranton State Hospital[a]	Scranton, Pa	F. W. Stevens	1,445	3,723	206	69	1	7/1	256
Wilkes-Barre General Hospital[a]	Wilkes-Barre, Pa	G. E. Baker	3,242	5,307	259	55	1	7/1	100
York Hospital[a]	York, Pa	H. B. Thomas	1,657	1,904	234	97	2	7/1	100
Rhode Island Hospital[a]	Providence, R. I.	M. S. Fulton	2,210	8,282	327	123	6	7/1	50
Roper Hospital[a]	Charleston, S. C.	J. A. Boone	2,641	8,733	179	86	8	7/1	50

Numerical and other references will be found on page 1215.

8. INTERNAL MEDICINE—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered*	Beginning of Service (1950)	Beginning Stipend (Month)
Columbia Hospital[2]	Columbia, S. C.	A. I. Josey	5,008	9,300	270	44	3	7/1	75
Greenville General Hospital[2]	Greenville, S. C.	G. B. Wilkinson	2,842	11,970	231	51	..	7/1	100
Baroness Erlanger Hospital[2]	Chattanooga, Tenn.	J. L. Bibb	3,510	5,782	326	62	2	7/1	75
Knoxville General Hospital[2]	Knoxville, Tenn.	R. B. Wood	1,301	4,450	175	37	1	7/1	85
John Gaston Hospital[2]	Memphis, Tenn.	C. H. Sanford	2,336	22,603	450	306	10	7/1	....
St. Joseph Hospital[2]	Memphis, Tenn.	S. Blackwell	2,524	.....	192	36	3	7/1	100
George W. Hubbard Hospital of Meharry Medical College[2]	Nashville, Tenn.	R. M. Kark	906	5,000	148	41	3	7/1	100
Nashville General Hospital[2]	Nashville, Tenn.	T. F. Frist	1,091	9,549	128	51	5	7/1	58.30
St. Thomas Hospital[2]	Nashville, Tenn.	W. R. Cate	1,535	.....	126	60	2	7/1	150
Vanderbilt University Hospital[2]	Nashville, Tenn.	H. J. Morgan	2,570	19,294	144	70	6	7/1	33.41
Baylor University Hospital[2]	Dallas, Texas	H. M. Winans	2,261	2,986	218	71	3	7/1	50
Methodist Hospital[2]	Dallas, Texas	H. Donald	1,476	.....	130	39	4	7/1	75
Parkland Hospital[2]	Dallas, Texas	T. B. Harrison	1,633	9,713	146	99	9	7/1	50
St. Paul's Hospital[2]	Dallas, Texas	T. M. Kirksey	497	4,631	13	4	4	7/1	100
Harris Hospital[2]	Fort Worth, Texas	W. S. Barcus	2,344	677	72	22	4	7/1	100
University of Texas Medical Branch Hospitals John Sealey Hospital[2]	Galveston, Texas	C. T. Stone	1,780	23,302	227	131	12	7/1, 9/1	50
Hermann Hospital[2]	Houston, Texas	J. Greene	2,656	4,739	178	91	6	.....	50
Jefferson Davis Hospital[2]	Houston, Texas	J. A. Greene	1,754	44,782	402	101	10	7/1	25
M. D. Anderson Hospital for Cancer Research	Houston, Texas	.....	.....	.....	...	.....	...	.....	...
Memorial Hospital[2]	Houston, Texas	P. V. Ledbetter	2,617	.....	150	98	...	.....	150
Methodist Hospital[2]	Houston, Texas	H. W. Cummings	1,155	200	71	38	4	7/1	75
Southern Pacific Hospital	Houston, Texas	M. D. Levy	660	15,621	14	4	3	.....	125
Santa Rosa Hospital	San Antonio, Texas	.....	.....	.....	...	.....	...	.....	...
Scott and White Hospital[2]	Temple, Texas	V. M. Longmire	2,650	.....	69	32	21	.....	50
Wichita Falls Clinic Hospital[2]	Wichita Falls, Texas	O. B. Kiel	1,702	34,400	25	14	1	.....	200
Thomas D. Dee Memorial Hospital[2]	Ogden, Utah	D. M. Petersen	.....	.....	...	...	3	.....	100
Dr. W. H. Groves Latter-Day Saints Hospital[2]	Salt Lake City	J. L. Kimball	3,292	.....	220	78	2	7/1	75
Holy Cross Hospital[2]	Salt Lake City	F. B. Bailey	872	.....	59	24	1	7/1	75
Salt Lake County General Hospital[2]	Salt Lake City	M. M. Wintrobe	910	12,319	127	85	5	7/1	50
Bishop De Goesbriand Hospital[2]	Burlington, Vt.	C. M. Terrien	1,361	1,650	80	41	1	7/1	100
Mary Fletcher Hospital[2]	Burlington, Vt.	E. L. Amidon	1,163	762	89	54	4	7/1	150
Alexandria Hospital[2]	Alexandria, Va.	W. L. Nalle	857	.....	80	34	2	7/1	87.50
University of Virginia Hospital[2]	Charlottesville, Va.	W. Parson	2,942	11,402	154	80	8	7/1	....
Chesapeake and Ohio Hospital	Clifton Forge, Va.	J. R. Beckwith	3,602	6,624	67	34	4	7/1	60
Riverside Hospital[2]	Newport News, Va.	W. A. Read	1,225	.....	95	31	1	7/1	150
De Paul Hospital[2]	Norfolk, Va.	W. B. Martin	1,011	2,666	178	65	4	7/1	100
Norfolk General Hospital[2]	Norfolk, Va.	J. T. Wahlill	3,438	6,527	188	52	10	7/1	125
Johnston-Willis Hospital[2]	Richmond, Va.	J. M. Hutcheson	2,089	.....	115	32	10	7/1	100
Medical College of Virginia Hospital Division[2]	Richmond, Va.	W. B. Porter	2,952	8,416	319	139	15	.....	...
Jefferson Hospital[2]	Roanoke, Va.	G. B. Lawson	911	2,878	96	14	1	7/1	50
Lewis-Gale Hospital[2]	Roanoke, Va.	C. D. Nofsinger	1,183	12,700	66	24	3	7/1	150
Doctors Hospital[2]	Seattle	C. I. Krantz	2,546	.....	153	61	2	7/1	100
King County Hospital, Unit No. 1 (Harborview)[2]	Seattle	R. H. Williams	2,611	10,241	280	131	10	7/1	90
Providence Hospital[2]	Seattle	R. F. Foster	2,516	492	162	80	3	7/1	100
Swedish Hospital[2]	Seattle	E. Bannick	1,966	.....	114	76	1	.....	100
Virginia Mason Hospital[2]	Seattle	L. J. Palmer	2,542	.....	122	83	6	7/1	75
Deaconess Hospital[2]	Spokane	O. C. Olson	1,783	.....	147	70	1	.....	150
St. Luke's Hospital[2]	Spokane	.....	.....	.....	...	.....	...	.....	...
Northern Permanente Hospital[2]	Vancouver, Wash.	E. W. Saward	323	13,432	18	11	...	.....	150
Charleston General Hospital[2]	Charleston, W. Va.	W. A. Toornhill	1,849	2,309	90	39	4	7/1	100
Chesapeake and Ohio Hospital[2]	Huntington, W. Va.	J. P. Webb	1,491	12,573	85	31	3	.....	115
St. Mary's Hospital[2]	Huntington, W. Va.	J. R. Cook	1,998	.....	95	41	1	7/1	100
La Crosse Lutheran Hospital[2]	La Crosse, Wis.	T. Gundersen	2,570	.....	96	41	1	7/1	150
Madison General Hospital[2]	Madison, Wis.	J. K. Curtis	1,220	.....	110	49	2	7/1	80
St. Mary's Hospital[2]	Madison, Wis.	R. N. Allin	1,743	.....	118	49	2	7/1	150
State of Wisconsin General Hospital[2]	Madison, Wis.	O. O. Meyer	2,214	8,000	120	105	15	7/1	75
St. Joseph's Hospital[2]	Marshfield, Wis.	K. H. Doerge	1,647	.....	99	49	3	.....	200
Columbia Hospital[2]	Milwaukee	E. W. Mason	1,114	.....	112	66	3	7/1	75
Milwaukee County Hospital[2]	Milwaukee	B. J. Peters	6,084	18,276	587	220	21	7/1	175.58
Milwaukee Hospital[2]	Milwaukee	J. Huston	1,554	.....	110	60	3	7/1	...
Mount Sinai Hospital[2]	Milwaukee	R. A. Frisch	1,357	5,108	110	39	2	7/1	75
St. Joseph's Hospital[2]	Milwaukee	J. K. Karr	2,087	.....	232	85	2	7/1	75
Queens Hospital[2]	Honolulu, Hawaii	H. Arnold, Sr.	2,400	10,215	191	120	6	7/1	75

9. MALIGNANT DISEASES

The following services are approved by the Council on Medical Education and Hospitals: Hospitals, 20 Assistant Residencies and Residencies, 116

Name of Hospital Veterans Administration	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered*	Beginning of Service (1950)	Beginning Stipend (Month)
Veterans Admin. Hospital	Hines, Ill.	T. H. Clarke	1,902	.....	342	130	...	.....	a
Hospfederal									
Collis P. and Howard Huntington Memorial Hospital[2]	Pasadena, Calif.	G. S. Sharp	614	.....	80	52	1	7/1	130
Grady Memorial Hospital[2]	Atlanta, Ga.	J. E. Scarborough	229	17,401	4	4	2	7/1	30
Michael Reese Hospital[2]	Chicago	E. M. Uhlmann	700	22,058	105	60	4	.....	50
Massachusetts General Hospital[2]	Boston	.....	.....	.....	...	...	...	.....	...
Pondville Hospital	Walpole, Mass.	.....	604	9,540	55	43	8	7/1	150
Westfield State Sanatorium[2]	Westfield, Mass.	H. Young	421	8,350	57	30	3	7/1	150
University of Minnesota Hospitals[2]	Minneapolis	O. H. Wangensteen	336	4,920	8	6	4	.....	125
Ellis Fischel State Cancer Hospital[2]	Columbia, Mo.	J. J. Modlin	1,135	5,011	61	38	11	7/1	....
Barnard Free Skin and Cancer Hospital	St. Louis	C. F. Sherwin and A. E. Arneson	1,689	25,823	10	7	2	7/1	130
Jersey City Hospital[2]	Jersey City, N. J.	J. B. Faison	311	2,002	41	11	2	.....	25
Brooklyn Cancer Institute	Brooklyn	W. E. Howes	700	10,405	106	62	4	7/1	80

Numerical and other references will be found on page 1215.

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9. MALIGNANT DISEASES—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered *	Beginning of Service (1956)	Beginning Stipend (Month)
Roswell Park Memorial Institute [1]	Buffalo	G. L. Sheehan	2,140	27,020	90	84	7	7/1	...
Meadowbrook Hospital [2]	Hempstead, N. Y.	J. W. McChesney	474	4,578	120	51	2	7/1	334
Memorial Hospital [3]	New York City	A. O. Whipple	6,193	83,414	221	64	44	1/1, 7/1	15
Montefiore Hospital for Chronic Diseases [2]	New York City	D. Laszlo	794	.....	389	169	6	1/1, 7/1	50
New York City Cancer Institute Hospital [1]	New York City	R. H. Golden	1,023	5,949	653	76	8	Varies	130
American Oncologic Hospital [1]	Philadelphia	G. M. Dorrance	1,731	10,569	32	19	5	7/1	150
Jeanes Hospital [1]	Philadelphia	A. E. Bothe	1,470	8,819	63	39	2	7/1	100
M. D. Anderson Hospital for Cancer Research	Houston, Texas	.....	.....	.....	...	...	...	.....	...

10. NEUROLOGICAL SURGERY

The following services are approved by the Council and the American Board of Neurological Surgery.
Hospitals, 79 Assistant Residencies and Residencies, 181

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered *	Beginning of Service (1956)	Length of Approved Program (Years)	Beginning Stipend (Month)
United States Navy										
U. S. Naval Hospital [2]	Long Beach, Calif.	A. L. Schultz	562	663	14	14	2	.....	1	n
Veterans Administration										
Veterans Admin. Hospital [2]	Los Angeles	C. W. Rand	.....	.....	...	...	3	7/1	1	n
Veterans Admin. Hospital	San Francisco	G. W. Jones and F. W. Lusignan	.....	.....	...	...	3	7/1	1	n
Veterans Admin. Hospital [2]	Van Nuys, Calif.	J. D. French	357	1,141	11	11	3	7/1	3	n
Veterans Admin. Hospital	Chamblee, Ga.	E. F. Fincher	318	678	11	9	1	1/1, 7/1	3	n
Veterans Admin. Hospital	Hines, Ill.	L. Davis	424	30	17	15	3	7/1	1	n
Veterans Admin. Center [1]	Wadsworth, Kan.	H. S. Cowley	845	.....	35	21	6	1/1, 7/1	3	n
Veterans Admin. Hospital [1]	Louisville, Ky.	E. E. Grantham	.....	.....	6	6	1	1/1, 7/1	2	n
Veterans Admin. Hospital [1]	Minneapolis	L. A. French	261	26	16	16	1	7/1	1	n
Veterans Admin. Hospital [1]	New York City	J. E. Scarff	261	26	12	10	2	7/1	3	n
Veterans Admin. Hospital [1]	Cleveland	C. S. Beck	454	750	30	19	4	1/1, 7/1	3	n
Veterans Admin. Hospital	Memphis, Tenn.	.....	556	187	21	16	1	7/1	1	n
Veterans Admin. Center [2]	White River Jct., Vt.	H. L. Heyl	300	.....	4	4	1	7/1	1	n
Veterans Admin. Hospital [1]	Richmond, Va.	J. L. Ulmer	363	.....	18	13	4	7/1	1	n
Nonfederal										
Jefferson-Hillman Hospitals [2]	Birmingham, Ala.	G. Galbraith	661	555	69	28	1	7/1	3	50
Los Angeles County Hospital [2]	Los Angeles	C. W. Rand	2,430	1,670	266	32	4	Varies	1	165
White Memorial Hospital [2]	Los Angeles	P. J. Vogel	384	.....	21	17	1	7/1	2	120
Franklin Hospital [2]	San Francisco	H. A. Brown	766	.....	23	15	2	7/1	1	100
University of California Hospital [2]	San Francisco	H. C. Naffziger	662	1,385	24	19	3	9/1	3	75
Hartford Hospital [2]	Hartford, Conn.	J. C. Fox, Jr.	992	500	49	37	2	7/1	3	50
St. Francis Hospital [2]	Hartford, Conn.	R. C. Buckley	844	1,302	31	19	1	7/1	1	100
Grace-New Haven Community Hospital, New Haven Unit (University Service) [2]	New Haven, Conn.	W. German	508	2,084	49	26	2	7/1	3	40
St. Vincent's Hospital [2]	Jacksonville, Fla.	J. O. Lyerly	267	.....	14	7	1	7/1	1	100
Emory University Hospital [2]	Emory University, Ga.	E. J. Fincher	340	.....	23	10	1	7/1	2	50
Augustana Hospital [2]	Chicago	W. A. Gustafson	225	.....	10	10	1	7/1	1	50
Chicago Memorial Hospital [2]	Chicago	F. C. Bucy	550	1,100	28	23	2	7/1	2	200
Cook County Hospital [2]	Chicago	H. C. Voris	2,241	235	174	17	1	1/1, 7/1	1	32
Illinois Neuropsychiatric Institute [1]	Chicago	E. Oldberg	572	7,778	42	36	5	7/1	3	35
Mercy Hospital-Loyola University Clinics [2]	Chicago	H. C. Voris	234	174	22	11	..	7/1	1	35
Presbyterian Hospital [2]	Chicago	A. Verbrugghen	181	436	11	9	1	.....	2	25
St. Luke's Hospital [2]	Chicago	E. Oldberg	282	.....	25	19	2	7/1	3	25
University of Chicago Clinics [2]	Chicago	T. B. Rasmussen	220	1,074	12	10	2	7/1	2	25
Wesley Memorial Hospital [2]	Chicago	T. H. Stone	342	.....	15	6	1	7/1	3	25
University of Kansas Medical Center [2]	Kansas City, Kan.	F. R. Teachenor	220	.....	15	12	1	7/1	3	100
University of Louisville Hospitals [2]	Louisville, Ky.	R. G. Spurling	174	1,431	30	10	..	7/1	2	....
Ochsner Foundation Hospital [1]	New Orleans	D. H. Echols	301	1,539	19	8	2	10/1	3	125
Maine General Hospitals [2]	Portland, Maine	G. L. Maibby	505	627	31	34	1	7/1	1	50
Johns Hopkins Hospital [2]	Baltimore	A. E. Walker	640	877	34	29	5	7/1	3	41.66
University Hospital [2]	Baltimore	C. Bagley, Jr.	536	711	56	30	3	7/1	3	75
Boston City Hospital [2]	Boston	D. Munro	331	.....	71	17	2	7/1	2	110
Lahey Clinic [2]	Boston	G. Horrax	1,393	5,986	40	28	10	1/1, 7/1	2	125
Massachusetts General Hospital [2]	Boston	.....	.....	.....	...	...	..	.....	3	...
New England Center Hospital	Boston	W. H. Sweet	80	30	...	....	1	7/1	1	83.33
University Hospital [2]	Ann Arbor, Mich.	E. A. Kahn	771	2,002	79	56	2	7/1	3	120.80
Grace Hospital [2]	Detroit	E. S. Gurdjian	962	.....	30	24	1	7/1	3	75
Henry Ford Hospital [2]	Detroit	A. S. Crawford	370	2,356	36	16	3	7/1	2	200
University of Minnesota Hospitals [2]	Minneapolis	W. T. Peyton	324	587	16	12	4	7/1	3	125
Mayo Foundation	Rochester, Minn.	W. McK. Craig	.....	.....	...	...	15	.....	3	92.50
Barnes Hospital [2]	St. Louis	H. Schwartz	570	.....	32	21	1	7/1	3	25
University of Nebraska Hospital [2]	Omaha	H. Davis	58	.....	16	16	1	7/1	3	75
Albany Hospital [2]	Albany, N. Y.	E. H. Campbell	682	120	41	29	3	7/1	3	41.67
Jewish Hospital [2]	Brooklyn	I. Tarlov and J. Siris	252	310	40	17	1	7/1	2	55
Kings County Hospital [2]	Brooklyn	F. J. Browder	3,542	1,983	316	176	3	7/1	3	50
Buffalo General Hospital [2]	Buffalo	W. B. Hamby	463	102	41	30	2	7/1	3	25
Millard Fillmore Hospitals [2]	Buffalo	W. F. Beswick	154	.....	15	8	..	.....	1	....
Mount Sinai Hospital [2]	New York City	I. Cohen	413	488	52	25	2	7/1	1	50
Presbyterian Hospital [2, 4]	New York City	J. L. Pool	640	802	59	....	7	7/1	3	41.66
St. Vincent's Hospital [2]	New York City	C. G. de Gutierrez-Mahoney	.....	.....	...	...	..	.....	2	...
Strong Memorial-Rochester Municipal Hospitals [2]	Rochester, N. Y.	W. P. Van Wagenen	578	180	...	...	1	7/1	3	41.66
Syracuse Memorial Hospital	Syracuse, N. Y.	A. D. Ecker	222	94	30	12	1	7/1	1	125
Duke Hospital [2]	Durham, N. C.	H. Woodhall	804	1,467	46	31	4	7/1	3	83.33
Christ Hospital [2]	Cincinnati	F. H. Mayfield	323	.....	12	7	1	7/1	1	110
Cincinnati General Hospital [2]	Cincinnati	J. F. Evans	457	768	61	37	2	7/1	..	....
Cleveland Clinic Hospital [1]	Cleveland	W. J. Gardner	913	7,222	68	39	6	7/1	2	125
White Cross Hospital [2]	Columbus, Ohio	H. E. Lefever	862	.....	57	30	2	7/1	2	100

Numerical and other references will be found on page 1215.

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10. NEUROLOGICAL SURGERY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res., and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
†St. Vincent's Hospital[a1]	Toledo, Ohio	M. T. Schnitker	361	65	26	19	1	7/1	1	...
University Hospitals[a]	Oklahoma City	H. Wilkins	168	642	17	10	1	7/1	2	35
†University of Oregon Medical School Hospitals and Clinics[a1,17]	Portland, Ore.	J. Raaf	15	.....	1	1	3	7/1	3	75
†Graduate Hospital of the University of Pennsylvania[a]	Philadelphia	R. Groff	490	650	35	29	2	7/1	2	...
Hospital of the University of Pennsylvania[a1]	Philadelphia	F. C. Grant	397	303	63	61	3	Varies	3	50
Jefferson Medical College Hospital[a]	Philadelphia	T. A. Shallow	390	474	39	15	2	.....	2	...
Temple University Hospitals[a1]	Philadelphia	M. Scott	681	1,383	45	17	2	7/1	2	50
Mercy Hospital[a1]	Pittsburgh	F. H. Bragdon	400	148	26	8	2	7/1	2	100
Western Pennsylvania Hospital[a1,18]	Pittsburgh	.....	...	...	...	...	1	.....	2	100
Baptist Memorial Hospital[a]	Memphis, Tenn.	R. E. Semmes	1,054	247	41	24	2	7/1	2	75
University of Texas Medical Branch Hospitals, John Sealy Hospital[a1] Galveston State Psychopathic Hospital	Galveston, Texas	S. R. Snodgrass	241	221	26	15	..	2/1	2	75
Methodist Hospital[a1]	Houston, Texas	J. Greenwood	446	.....	7	6	1	7/1	2	75
University of Virginia Hospitals[a1]	Charlottesville, Va.	W. G. Crutchfield	734	404	50	24	3	7/1	3	62
Medical College of Virginia, Hospital Division[a1]	Richmond, Va.	C. C. Coleman	969	514	72	39	3	.....	3	...

11. NEUROLOGY

The following services are approved by the Council and the American Board of Psychiatry and Neurology. Hospitals, 69 Assistant Residencies and Residencies, 200

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res., and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
United States Army										
Letterman General Hospital[a]	San Francisco	S. C. Ritter	530	465	1	1	1	1/1, 7/1	3	n
†Fitzsimmons General Hospital[a]	Denver	D. B. Peterson	294	67	3	2	1	1/1, 7/1	3	n
Army Medical Center[a1]	Washington, D. C.	E. R. Inwood	1,702	268	2	1	1	7/1	1	n
United States Navy										
U. S. Naval Hospital[a1]	Bethesda, Md.	W. H. Boswell	1,525	350	18	12	..	Varies	1	n
U. S. Naval Hospital[a]	Philadelphia	E. L. Caveny	3,521	5,502	16	4	6	1/1, 7/1	1	n
Federal Security Agency										
†Freedmen's Hospital[a1]	Washington, D. C.	E. Y. Williams	100	1,236	11	6	1	7/1	2	n
Veterans Administration										
Veterans Admin. Hospitals[a1]	Los Angeles	.....	.....	.....	10	7	1	1/1, 7/1	2	n
†Veterans Admin. Hospitals[a1]	Van Nuys, Calif.	H. H. De Jong	162	.....	29	26	2	1/1, 7/1	3	n
Veterans Admin. Hospital	Hines, Ill.	L. J. Pollock	700	.....	52	29	10	1/1, 7/1	3	n
Veterans Admin. Hospital[a1]	Topeka, Kans.	L. Bernstein	470	.....	11	6	2	7/1	2	n
Veterans Admin. Hospital[a1,21]	Louisville, Ky.	E. Roseman	360	1,004	9	3	2	.....	2	n
Veterans Admin. Hospital[a1]	Framingham, Mass.	F. A. Quadfasel	630	.....	10	8	2	7/1	3	n
Veterans Admin. Hospital[a1]	Minneapolis	R. Zaring	1,302	819	39	33	10	7/1	3	n
Veterans Admin. Hospital[a1]	New York City	H. G. Wolff	967	750	36	22	6	1/1, 7/1	3	n
Veterans Admin. Hospital[a1]	Cleveland	L. Hahe	361	392	15	10	1	7/1	3	n
Veterans Admin. Hospital[a1]	Coatesville, Pa.	C. Rupp	...	...	...	...	1	7/1	3	n
Veterans Admin. Hospital	Richmond, Va.	B. Nagler	176	.....	9	5	5	7/1	1	n
Nonfederal										
Los Angeles County Hospital[a1]	Los Angeles	S. P. Ingham	2,814	3,351	454	201	3	Varies	3	165
White Memorial Hospital[a]	Los Angeles	C. B. Courville	426	2,248	6	4	3	.....	3	...
University of California Hospitals[a1]	San Francisco	R. B. Aird	314	2,864	5	5	3	7/1	2	75
Gallinger Municipal Hospital[a1]	Washington, D. C.	W. Freeman	362	.....	64	19	2	7/1	2	100
George Washington University Hospitals[a1]	Washington, D. C.	W. Freeman	98	657	4	2	1	7/1	2	50
†Cook County Hospitals[a1]	Chicago	J. A. Luhan	368	2,388	48	14	1	1/1, 7/1	1	32
Illinois Neuropsychiatric Institute[a1]	Chicago	F. Oldberg	...	...	...	...	..	7/1	2	55
St. Luke's Hospitals[a1]	Chicago	R. P. Mackay	678	.....	7	4	1	7/1	2	35
University of Chicago Clinics[a]	Chicago	R. B. Richter	149	2,301	6	6	1	7/1	2	150
Indianapolis General Hospitals[a1]	Indianapolis	A. Ross	39	.....	7	5	1	7/1	1	80
Methodist Hospital[a1]	Indianapolis	P. B. Reed	700	.....	226	14	2	7/1	2	200
University Hospitals[a1,17]	Iowa City	A. L. Sahs	1,197	681	30	17	3	.....	3	50
Louisville General Hospitals[a1]	Louisville, Ky.	E. Roseman	.....	.....	...	...	...	.....	1	...
Charity Hospital of Louisiana[a1]	New Orleans	.....	779	10,302	29	7	3	7/1	3	25
Baltimore City Hospitals[a1]	Baltimore	J. W. Magladery	.....	.....	...	...	1	7/1	3	15
Boston City Hospital[a1]	Boston	D. E. Denny Brown	184	4,377	14	4	2	7/1	2	50
Massachusetts General Hospital[a]	Boston	.....	.....	.....	...	...	...	.....	3	...
†New England Center Hospital[a1]	Boston	R. D. Adams	1,000	400	...	...	1	7/1	2	83.33
University Hospitals[a1]	Ann Arbor, Mich.	C. D. Camp	708	4,556	30	16	5	7/1	3	139.60
Henry Ford Hospital[a1,4]	Detroit	O. O. Grain	.....	.....	...	...	2	7/1	3	200
University of Minnesota Hospitals[a1]	Minneapolis	A. B. Baker	695	2,414	34	28	3	7/1	3	175
Mayo Foundation	Rochester, Minn.	H. W. Woltman	.....	.....	...	15	.....	.....	3	87.50
Barnes Hospital[a]	St. Louis	Drs. Wood and Gildea	385	.....	4	4	1	7/1	2	25
Homer G. Phillips Hospital[a1]	St. Louis	J. O'Leary	1,027	2,093	78	14	3	7/1	3	98
St. Louis City Hospital[a1]	St. Louis	J. O'Leary and E. Sassin	667	1,414	307	77	1	7/1	2	...
Albany Hospital[a1,5]	Albany, N. Y.	.....	.....	.....	...	...	...	.....	1	...
Brooklyn Hospital[a1]	Brooklyn	J. Browder	272	.....	29	15	2	7/1	2	25
Jewish Sanitarium and Hospital for Chronic Diseases[a]	Brooklyn	A. M. Rabiner	348	.....	43	11	3	.....	2	150
Kings County Hospital[a1]	Brooklyn	A. M. Rabiner	1,879	2,586	603	70	4	7/1	3	80
Buffalo General Hospital[a1]	Buffalo	J. H. Talbott	397	658	7	4	..	7/1	3	25
Bellevue Hospital, Div. II—Cornell University[a1]	New York City	G. Schumacher	472	4,550	...	...	4	7/1	3	80
Bellevue Hospital, Div. III—New York University[a1,5]	New York City	.....	.....	.....	...	...	...	.....	3	...
Fordham Hospital[a1]	New York City	J. H. Friedman	1,210	318	102	13	1	1/1	1	60
Goldwater Memorial Hospital[a1]	New York City	F. Mayberduk and D. Dattner	762	391	65	16	5	7/1	1	70

Numerical and other references will be found on page 1215.

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11. NEUROLOGY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered *	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Salary (Month)
Lenox Hill Hospital[a1]	New York City	T. K. Davis	300	782	12	3	1	Varies	2	50
Metropolitan Hospital[a2]	New York City	S. P. Jewett	101	1,277	3	...	1	7/1	2	120
Montefiore Hospital for Chronic Diseases[a1]	New York City	T. J. C. Von Storch	48	.....	51	31	4	1/1, 7/1	3	50
Morrisania City Hospital[a1]	New York City	N. Savitsky	.....	1,002	...	...	2	7/1	2	80
Mount Sinai Hospital[a1]	New York City	I. R. Wechsler	549	2,549	39	39	5	7/1	3	50
New York City Hospital[a1]	New York City	L. Y. Lyons	643	1,072	100	30	2	7/1	2	80
Presbyterian Hospital[a1,43]	New York City	H. H. Merritt	2,939	13,708	60	....	13	7/1	3	41.66
†St. Vincent's Hospital	New York City	C. G. De Gutierrez-Mahoney	634	1,980	48	14	3	7/1	1	50
Duke Hospital[a]	Durham, N. C.	E. Kunkle	126	665	1	1	2	7/1	3	83.33
Cincinnati General Hospital[a1]	Cincinnati	C. Aring	394	1,927	130	57	1	7/1	3	....
†Cleveland Clinic Hospital	Cleveland	L. J. Karnosh	131	9,400	3	....	4	7/1	1	135
†Graduate Hospital of the University of Pennsylvania[a]	Philadelphia	J. C. Yaskin	637	1,676	14	8	3	7/1	1	....
Hospital of the University of Pennsylvania[a1]	Philadelphia	G. D. Gammon	1,043	3,404	17	13	4	Varies	3	50
Jefferson Medical College Hospital[a]	Philadelphia	B. J. Alpers	628	21,042	28	13	2	.....	3	....
Philadelphia General Hospital[a1]	Philadelphia	G. Wilson	1,935	11,083	591	334	6	7/1	3	75
Temple University Hospital[a1]	Philadelphia	S. Gilpin	229	.....	32	18	..	7/1	3	50
†St. Francis Hospital[a1,4]	Pittsburgh		....	.....	...	...	..	.....	1	...
University of Texas Medical Branch Hospitals	Galveston, Texas		....	.....	...	...	..	.....	1	...
Galveston State Psychopathic Hospital *										

12. OBSTETRICS AND GYNECOLOGY

The following services are approved by the Council and the American Board of Obstetrics and Gynecology.
Hospitals, 374 Assistant Residencies and Residencies, 1,322

Name of Hospital	Location	Chief of Service	Residencies Approved	Inpatients Treated	Outpatient Visits	Asst., Res. and Residencies Offered *	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Salary (Month)
United States Army									
Letterman General Hospital[a]	San Francisco	E. N. Abers	OBG	1,743	13,221	6	1/1, 7/1	3	n
Fitzsimmons General Hospital[a]	Denver	J. E. Sams	OBG	2,731	12,868	6	1/1, 7/1	3	n
Army Medical Center[a2]	Washington, D. C.	H. L. Rivs	OBG	1,956	33,705	9	7/1	3	n
Brooke Army Medical Center[a1]	San Antonio, Texas	J. W. Simpson	OBG	3,506	27,215	9	7/1	3	n
Tripler General Hospital[a]	Honolulu, Hawaii	.....	OBG	1,907	12,442	..	7/1	2	n
United States Navy									
U. S. Naval Hospital[a]	Long Beach, Calif.	R. E. Crowder	OBG	3,112	27,369	6	Varies	3	n
U. S. Naval Hospital[a]	Oakland, Calif.	M. Rubin	OBG	3,110	17,646	5	.....	2	n
U. S. Naval Hospital[a]	San Diego, Calif.	H. H. Hill	OBG	3,423	30,260	4	Varies	2	n
U. S. Naval Hospital[a]	Great Lakes, Ill.	L. M. Harris	OBG	1,720	11,719	4	Varies	3	n
U. S. Naval Hospital[a]	Bethesda, Md.	P. Peterson	OBG	2,201	23,548	6	.....	3	n
U. S. Naval Hospital[a]	Chelsea, Mass.	F. B. Smith	OBG	1,557	4,878	4	Varies	2	n
U. S. Naval Hospital[a]	St. Albans, N. Y.	E. B. Hopper	OBG	1,719	12,731	6	Varies	2	n
U. S. Naval Hospital[a]	Philadelphia	E. P. Madden	OBG	1,602	12,442	5	1/1, 7/1	3	n
U. S. Naval Hospital[a]	Portsmouth, Va.	L. J. Dorgan	OBG	2,063	31,008	5	Varies	2	n
Federal Security Agency									
Freedmen's Hospital[a1]	Washington, D. C.	J. W. Ross	OBG	2,533	9,908	3	7/1	3	n
Hostefederal									
Carraway Methodist Hospital[a]	Birmingham, Ala.	T. M. Boulware	OB	1,865	8,697	1	7/1	1	150
Jefferson-Hillman Hospital[a1]	Birmingham, Ala.	N. Jones and J. R. Garber	OBG	5,644	14,805	8	7/1	3	50
Employees' Hospital of Tennessee Coal, Iron and Railroad Company[a]	Fairfield, Ala.	O. T. West	OB	2,189	14,067	4	7/1	2	225
St. Vincent Infirmary	Little Rock, Ark.	C. R. Henry	OBG	2,772	.....	2	7/1	3	75
University Hospitals[a1]	Little Rock, Ark.	W. E. Brown	OBG	2,239	16,703	10	7/1	3	75
Herrick Memorial Hospital[a1]	Berkeley, Calif.	T. R. Hoffmann	OBG	2,414	2,124	1	7/1	1	50
San Joaquin General Hospital[a1]	French Camp, Calif.	D. G. Harrington	OBG	1,930	9,462	2	1/1, 7/1	2	250
California Hospital[a]	Los Angeles	G. W. Hewitt	OB	2,414	733	4	7/1	2	100
Los Angeles County Hospital[a1]	Los Angeles	B. J. Stanley	OBG	12,652	14,867	11	Varies	3	165
Queen of Angels Hospital[a1]	Los Angeles	A. M. McCarthy	OBG	7,650	2,450	3	1/1, 7/1	3	100
White Memorial Hospital[a1]	Los Angeles	R. J. Thompson	OBG	2,548	20,242	4	7/1	3	130
Highland Alameda County Hospital[a1]	Oakland, Calif.	T. F. Bell	OBG	2,827	.....	3	.....	3	135
Permanente Foundation Hospital[a]	Oakland, Calif.	R. W. King	OBG	3,130	22,454	4	.....	3	195
Samuel Merritt Hospital	Oakland, Calif.	C. C. Hall	OBG	3,123	.....	2	7/1	1	100
Collis P. and Howard Huntington Memorial Hospital	Pasadena, Calif.	E. I. Sorenson	OB	2,019	.....	1	7/1	1	130
Mercy Hospital[a]	San Diego, Calif.	C. R. Kennedy	OBG	5,691	274	3	7/1	3	100
San Diego County General Hospital[a1]	San Diego, Calif.	W. B. McGee	OBG	1,571	5,157	2	7/1	1	125
Children's Hospital[a1]	San Francisco	H. A. Stephenson	OBG	3,611	3,512	3	7/1	3	50
Mary's Help Hospital[a1]	San Francisco	C. L. Cooby	OBG	2,491	4,275	2	7/1	1	150
St. Joseph's Hospital[a1]	San Francisco	H. Von Gebsattel	OBG	2,278	122	2	7/1	1	200
St. Mary's Hospital[a]	San Francisco	P. H. Arnot	OB	2,240	1,131	3	7/1	1	100
San Francisco Hospital[a1]	San Francisco	.....	OBG	.....	.....	4	7/1	3	175
Stanford University Hospitals[a1]	San Francisco	C. F. McLennan	OBG	5,415	15,948	7	7/1	3	50
University of California Hospitals[a1]	San Francisco	H. F. Traut	OBG	2,026	15,630	5	7/1	3	75
Santa Clara County Hospital[a]	San Jose, Calif.	A. Shufelt	OBG	2,251	6,501	3	7/1	2	225
St. John's Hospital[a]	Santa Monica, Calif.	B. Watson	OBG	2,581	.....	2	9/1	2	150
Los Angeles Harbor General Hospital[a1]	Torrance, Calif.	M. Weiner	OBG	1,823	2,576	5	7/1	1	165
St. Joseph's Hospital[a]	Denver	L. Mason	OBG	3,259	.....	2	7/1	2	85
University of Colorado Medical Center Colorado General Hospital[a]	Denver	E. S. Taylor	OBG	1,333	8,397	8	7/1	3	75
Denver General Hospital[a1,9]	Denver	E. S. Taylor	OBG	1,441	4,550	2	7/1	3	75
Bridgeport Hospital[a]	Bridgeport, Conn.	C. Griswold	OB	2,671	1,730	2	7/1	1	100
St. Vincent's Hospital[a]	Bridgeport, Conn.	J. H. Howard	OB	28,422	1,282	1	7/1	1	....
Hartford Hospital[a1]	Hartford, Conn.	R. W. Storrs	OBG	8,468	6,458	2	7/1	3	50
New Britain General Hospital[a1]	New Britain, Conn.	D. A. Bristol	OBG	2,794	.....	1	7/1	1	75
Grace-New Haven Community Hospital Grace Unit[a]	New Haven, Conn.	H. Perrins	OBG	1,911	1,661	3	7/1	3	32
New Haven Unit (University Service)[a1]	New Haven, Conn.	H. Thoms	OBG	2,852	5,938	4	7/1	3	40

Numerical and other references will be found on page 1215.

12. OBSTETRICS AND GYNECOLOGY—Continued

Name of Hospital	Location	Chief of Service	Residencies Approved	Inpatients Treated	Outpatient Visits	Asst., Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Salary (Month)
Hospital of St. Raphael[1]	New Haven, Conn.	C. Johnson	OBG	3,302	.....	5	7/1	3	75
Lawrence and Memorial Associated Hospitals[1]	New London, Conn.	E. H. Blank	OBG	2,005	.....	2	7/1	1	125
Norwalk Hospital[1]	Norwalk, Conn.	V. G. Wallace	OB	1,656	511	1	7/1	1	125
Columbia Hospital for Women and Lying In Asylum[1]	Washington, D. C.	J. D. Wynkoop and P. Haynes	OBG	6,322	14,736	6	7/1	3	...
Doctors Hospital[1]	Washington, D. C.	J. D. Wynkoop	OBG	3,340	.....	2	7/1	2	150
Gallinger Municipal Hospital[1]	Washington, D. C.	R. H. Barter	OBG	6,488	7,265	6	7/1	3	100
Garfield Memorial Hospital[1]	Washington, D. C.	.....	OBG	3,005	5,807	..	.....	3	...
Georgetown University Hospital[1]	Washington, D. C.	A. A. Marchetti	OBG	3,491	5,804	6	7/1	3	90
George Washington University Hospital[1-2-3]	Washington, D. C.	J. L. Parks	OBG	4,576	1,982	4	7/1	3	80
Providence Hospital[1]	Washington, D. C.	G. J. Ellis	OBG	4,224	3,596	4	7/1	2	75
Sibley Memorial Hospital[1]	Washington, D. C.	J. Kotz	OB	3,619	280	5	7/1	2	75
Brewster Hospital[1]	Jacksonville, Fla.	M. Suter	OBG	1,300	1,000	2	7/1	1	125
Duval Medical Center[2]	Jacksonville, Fla.	S. R. Norris	OB	334	.....	..	7/1	1	125
		F. Richards	Gyn	1,300	.....	..	7/1	1	125
St. Luke's Hospital[2]	Jacksonville, Fla.	S. R. Norris	OB	2,014	2,986	2	7/1	1	125
Jackson Memorial Hospital[2]	Miami, Fla.	H. L. Pearson	OBG	4,725	5,144	2	7/1	2	60
Orange Memorial Hospital[1]	Orlando, Fla.	.....	OB	.....	.....	..	.....	1	...
			GYN	.....	.....	..	.....	1	...
Crawford W. Long Memorial Hospital[1]	Atlanta, Ga.	J. B. Varner	OBG	7,885	3,551	12	7/1	3	75
Grady Memorial Hospital[1]	Atlanta, Ga.	J. R. Cross	OBG	7,102	46,122	12	7/1	3	70
St. Joseph's Infirmary[2-3]	Atlanta, Ga.	H. Boyd	OB	1,502	3,314	2	7/1	1	100
University Hospital[1]	Augusta, Ga.	R. Torpa	OBG	4,131	7,051	7	7/1	3	60
Augustana Hospital[2]	Chicago	W. H. Browne and S. M. Perry	OBG	2,610	3,270	2	7/1	1	50
Chicago Maternity Center[1]	Chicago	R. E. Tucker and H. R. Denarson	OB	4,373	11,232	6	1/1	1	50
Cook County Hospital[2-3]	Chicago	F. H. Falls and J. E. Fitzgerald	OBG	13,338	13,581	16	1/1, 7/1	3	32
Englewood Hospital[2]	Chicago	C. D. Krause	OB	1,087	.....	..	3/1	1	200
Frank Cuzco Hospital	Chicago	H. O. Maryan	OBG	2,900	164	1	7/1	2	150
Grant Hospital[2]	Chicago	V. C. Freis	OBG	2,483	2,646	2	7/1	3	100
Henrotin Hospital[2]	Chicago	E. L. Cornell	OB	836	500	1	7/1	1	100
Hospital of St. Anthony De Padua[2]	Chicago	F. J. Fara	OB	1,500	.....	2	7/1	1	150
Illinois Masonic Hospital[2]	Chicago	F. J. Rose	OBG	1,813	600	2	1/1, 7/1	1	50
Lewis Memorial Maternity Hospital[1-2-3]	Chicago	H. R. Schmitz	OBG	2,706	16,130	12	1/1, 7/1	3	80
Loretto Hospital[2]	Chicago	G. Z. Wiekster	OB	1,300	.....	1	7/1	1	200
Lutheran Deaconess Home and Hospital[2]	Chicago	G. Reeve	OB	1,522	.....	1	7/1	1	100
Mercy Hospital Loyola University Clinics[2]	Chicago	H. E. Schmitz	OBG	2,15..	2,486	3	7/1	3	50
Michael Reese Hospital[2]	Chicago	R. A. Brin	OBG	4,404	4,173	6	1/1, 7/1	3	75
Mount Sinai Hospital[2]	Chicago	A. H. Klawans	OBG	2,829	2,849	2	7/1	2	50
Passavant Memorial Hospital[2]	Chicago	J. I. Brewer	OBG	2,911	985	2	1/1	3	...
Presbyterian Hospital[2]	Chicago	E. D. Allen	OBG	3,500	2,356	9	.....	3	75
Provident Hospital[2]	Chicago	T. C. Raines and P. Santos	OBG	2,647	5,282	4	7/1	3	80
Ravenswood Hospital[2]	Chicago	F. W. Rohr	OBG	2,525	1,200	3	7/1	2	60
Research and Educational Hospital[2]	Chicago	F. H. Falls	OB	1,251	12,924	3	7/1	3	50
St. Anne's Hospital[2]	Chicago	R. J. Hawkins	OB	2,618	.....	3	7/1	3	150
St. Elizabeth Hospital[2]	Chicago	J. R. Lavieri	OBG	3,698	.....	4	.....	3	60
St. Joseph Hospital[2]	Chicago	C. Geiger	OBG	2,595	2,270	3	7/1	1	75
St. Luke's Hospital[1]	Chicago	E. A. Edwards	OBG	2,986	.....	5	7/1	3	75
Swedish Covenant Hospital[2]	Chicago	G. L. Rosene	OB	2,176	.....	1	7/1	1	150
University of Chicago Clinics[2]	Chicago	W. J. Dieckmann	OBG	6,050	38,681	25	7/1	3	75
Wesley Memorial Hospital[2]	Chicago	G. H. Gardner	OBG	3,014	.....	3	7/1	3	75
Women and Children's Hospital[2]	Chicago	L. Nadelhoffer	OB	1,102	668	2	7/1	2	75
Evanston Hospital[2]	Evanston, Ill.	.....	OBG	2,484	1,962	2	7/1	3	50
St. Francis Hospital[2]	Evanston, Ill.	J. M. Bailey	OBG	2,726	128	2	7/1	3	75
Little Company of Mary Hospital[2]	Evergreen Park, Ill.	P. E. Lawler	OB	3,340	.....	3	7/1	3	100
West Suburban Hospital[2]	Oak Park, Ill.	F. H. Falls	OBG	3,061	338	3	7/1	2	150
St. Francis Hospital[2]	Peoria, Ill.	W. A. Michael	OBG	3,818	853	2	7/1	2	100
Indianapolis General Hospital[2]	Indianapolis	J. W. Hoffman and P. Hodson	OBG	2,564	13,756	3	7/1	3	80
Indiana University Medical Center[2]	Indianapolis	.....	OB	2,088	5,001	4	7/1	3	80-90
Methodist Hospital[2]	Indianapolis	L. J. Clark	OB	5,117	.....	3	7/1	3	250
St. Vincent's Hospital[2]	Indianapolis	C. Habich and P. J. Hudson	OBG†	4,443	515	3	7/1	3	200
St. Elizabeth Hospital[2]	La Fayette, Ind.	F. W. Peyton	OBG†	2,459	97	3	7/1	3	100
University Hospitals[2]	Iowa City	E. D. Plass	OBG	2,469	3,888	9	.....	3	...
University of Kansas Medical Center[2]	Kansas City, Kan.	L. A. Calkins	OBG	1,757	11,327	5	7/1	3	150
St. Francis Hospital[2]	Wichita, Kan.	R. A. West	OBG	3,702	.....	3	7/1	1	125
Wesley Hospital[2]	Wichita, Kan.	M. W. Hall	OBG	3,567	.....	3	7/1	1	125
St. Joseph Hospital[2]	Lexington, Ky.	A. B. Barrett	OBG	1,947	125	1	7/1	1	100
Louisville General Hospital[2]	Louisville, Ky.	W. O. Johnson and H. Starr	OBG	2,070	15,686	9	7/1	3	65
St. Joseph Infirmary[2]	Louisville, Ky.	J. D. Gordinier	OBG	3,051	1,451	6	7/1	3	75
Charity Hospital of Louisiana[2]	New Orleans	.....	OBG	17,080	90,785	30	7/1	3	80
Hotel Dieu Sisters' Hospital[2]	New Orleans	K. W. Nelson	OBG	3,915	.....	3	7/1	1	75
Ochsner Foundation Hospital[2]	New Orleans	C. Tyrone	OBG	510	15,849	6	1/1, 7/1	3	125
Southern Baptist Hospital[2]	New Orleans	W. D. Bradham	OBG	4,868	.....	3	7/1	1	150
Touro Infirmary	New Orleans	W. E. Levy and C. Tyrone	OBG	4,140	7,442	6	7/1	3	17.50
Shreveport Charity Hospital[2]	Shreveport, La.	C. R. Mays	OBG	4,457	.....	5	7/1	2	60
Baltimore City Hospitals[2]	Baltimore	L. H. Douglass	OB	2,454	.....	4	7/1	3	15
Bon Secours Hospital[2]	Baltimore	F. Novak and H. B. McNally	OB(G†)	2,924	2,262	3	7/1	1	75
Franklin Square Hospital[2]	Baltimore	K. W. Mansfield	OB(G†)	1,625	1,440	4	7/1	1	65
Hospital for Women[2]	Baltimore	J. Berglund	OB	1,849	4,686	3	7/1	1	75
Johns Hopkins Hospital[2]	Baltimore	R. W. Tolinde and N. J. Eastman	OBG	5,382	39,265	15	7/1	3	41.66
Maryland General Hospital[2]	Baltimore	E. H. Kloman and K. B. Boyd	OBG	1,899	838	4	7/1	2	50
Mercy Hospital[2]	Baltimore	T. K. Galvin and J. J. Erwin	OBG	2,744	4,422	4	7/1	3	50
Provident Hospital and Free Dispensary[2]	Baltimore	.....	OB	1,596	4,187	3	7/1	1	100
St. Agnes Hospital[2]	Baltimore	F. Novak and H. B. McNally	OBG†	2,124	709	5	7/1	1	75
St. Joseph's Hospital[2]	Baltimore	T. K. Galvin and H. B. McNally	OBG	2,510	4,169	4	7/1	3	50

Numerical and other references will be found on page 1215.

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12. OBSTETRICS AND GYNECOLOGY—Continued

Name of Hospital	Location	Chief of Service	Bed Services Approved	Inpatients Treated	Outpatient Visits	Asst., Jun. and Resident Offered *	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Sinai Hospital[a1]	Baltimore	A. F. Guttmacher	OB	2,781	9,209	3	7/1	2	125
		D. Silberman	Gyn	1,382	1,412	6	7/1	1	125
South Baltimore General Hospital[a1]	Baltimore	J. King and R. E. Seegar	OB†	1,077	2,318	2	7/1	1	90
Union Memorial Hospital[a]	Baltimore	J. M. Haws	OB	2,565	3,212	3	.....	1	...
University Hospital[a1]	Baltimore	L. H. Douglass							
		J. M. Hundley, Jr.	OBG	3,907	29,241	11	7/1	3	75
West Baltimore General Hospital[a1]	Baltimore	W. K. Diehl and D. M. Dixon	OBG	3,082	3,056	8	7/1	1	60
Boston City Hospital[a1]	Boston	F. L. Good and F. J. Lynch	OBG	5,374	19,317	10	7/1	3	90
Boston Lying-In Hospital	Boston	D. E. Reid	OB	3,025	25,467	10	1/1	3	...
Carney Hospital[a]	Boston	L. E. Phaneuf	OBG	2,075	3,920	3	7/1	3	80
Massachusetts Memorial Hospitals[a1]	Boston	C. W. Sewall	OB	1,652	3,485	3	7/1	2	80
St. Elizabeth's Hospital[a]	Boston	W. J. McDonald	OB	2,159	1,500	2	7/1	1	75
Booth Memorial Hospital	Brookline, Mass.	H. S. Finkel	OB	1,404	2,856	2	1/1, 7/1	1	62.50
Free Hospital for Women	Brookline, Mass.	G. Van S. Smith	Gyn	3,040	23,947	6	1/1	3	60
Cambridge City Hospital[a]	Cambridge, Mass.	F. J. Lynch	OBG	2,159	3,151	3	7/1	3	75
St. Joseph's Mercy Hospital[a1]	Ann Arbor, Mich.	W. Belser	OBG†	2,282		5	7/1	1	125
University Hospital[a1]	Ann Arbor, Mich.	N. Miller	OBG	7,487	13,548	11	7/1	3	130.60
City of Detroit Receiving Hospital[a1]	Detroit	C. S. Stevenson	Gyn	901	5,949	2	7/1	3	140.08
Evangelical Deaconess Hospital[a1]	Detroit	I. Braun	OBG	1,772	194	2	7/1	1	130
Florence Crittenton Hospital	Detroit	H. A. Pearse	OBG	2,907	5,146	6	7/1	3	125
Grace Hospital[a1]	Detroit	O. W. Pickard	OBG	9,181	.....	12	7/1	3	75
Harper Hospital[a1]	Detroit	A. E. Catherwood	OBG	4,780	3,866	6	7/1	3	110
Henry Ford Hospital[a1]	Detroit	J. P. Pratt	OBG	9,490	80,571	4	7/1	3	200
Herman Kiefer Hospital[a1]	Detroit	S. Stevenson	OB	3,606	.....	3	7/1	3	200
Mt. Carmel Mercy Hospitals[a1]	Detroit	C. N. Swanson	OBG	6,618	.....	8	7/1	2	150
Providence Hospital[a]	Detroit	R. W. Alles	OBG	5,530	.....	7	7/1	3	140
St. Joseph's Mercy Hospitals[a1]	Detroit	R. B. Kennedy	OBG	2,040	538	3	7/1	2	150
Woman's Hospital[a1]	Detroit	H. M. Nelson and L. E. Daniels	OBG	5,720	.....	6	7/1	3	165
Hurley Hospital[a1]	Flint, Mich.	M. R. Burnell	OBG	4,200	.....	2	7/1	2	125
Blodgett Memorial Hospital[a1]	Grand Rapids, Mich.	A. B. Thompson, Jr.	OBG	1,683	.....	1	7/1	1	200
Butterworth Hospital[a1]	Grand Rapids, Mich.	L. P. Bosch	OBG	4,727	807	4	7/1	2	150
St. Mary's Hospital[a]	Grand Rapids, Mich.	J. H. Beaton	OBG	3,862	112	3	.....	1	125
Pontiac General Hospital[a1]	Pontiac, Mich.	H. A. Furlong	OBG	3,749	458	4	7/1	3	75
Saginaw General Hospital[a1]	Sag naw, Mich.	C. E. Toshach	OBG	2,562	1,949	3	7/1	3	85
St. Mary's Hospital[a]	Duluth, Minn.	A. O. Swenson	OB	1,981	.....	...	7/1	2	100
Abbott Hospital[a]	Minneapolis	C. H. McKenzie	OB†	1,985	.....	2	.....	1	...
Maternity Hospital[a]	Minneapolis	A. Arnold	OB	1,878	4,357	2	1/1, 7/1	1	165
Minneapolis General Hospital[a1]	Minneapolis	L. A. Lang	OBG	1,327	5,712	2	1/1, 7/1	3	125
Northwestern Hospital[a1]	Minneapolis	C. J. Ehrenberg	OBG	2,914	.....	2	7/1	2	150
St. Barnabas Hospitals[a1]	Minneapolis	J. T. Moehn	OBG	2,097	.....	2	6/1	2	125
St. Mary's Hospitals[a1]	Minneapolis	L. A. Lang	OBG	4,408	.....	2	1/1, 7/1	2	200
Swedish Hospital[a]	Minneapolis		OB	2,597	.....	...	7/1	1	125
University of Minnesota Hospitals[a1]	Minneapolis	J. McKelvey	OBG	1,244	4,533	7	7/1	3	125
Mayo Foundation	Rochester, Minn.	L. M. Randall		.....	.....	12	.....	3	97.50
Ancker Hospitals[a1]	St. Paul	Z. Kasper	OBG	867	3,085	1	.....	3	91.50
Charles T. Miller Hospitals[a1]	St. Paul	E. Hartley and R. S. Countryman	OBG	3,079	3,355	2	7/1	3	115
St. Louis County Hospital[a]	Clayton, Mo.	E. L. Dorsett	OBG	960	3,100	2	7/1	3	80
Kansas City General Hospital No. 1[a1]	Kansas City, Mo.	G. F. Pendleton	OBG	1,786	6,040	3	7/1	3	80
Kansas City General Hospital No. 2[a1]	Kansas City, Mo.	H. L. Gainey	OBG	1,981	2,982	4	7/1	2	50
St. Joseph Hospital[a]	Kansas City, Mo.	A. B. Sinclair	OBG	2,438	800	1	7/1	2	150
St. Luke's Hospitals[a1]	Kansas City, Mo.	P. A. Dengel	OBG	3,107	45	1	7/1	2	75
De Paul Hospitals[a1]	St. Louis	M. Riordan	OBG†	1,200	200	3	7/1	2	90
Homer G. Phillips Hospitals[a1]	St. Louis	K. C. Morrin	OBG	4,327	7,566	5	7/1	3	98
Jewish Hospitals[a1]	St. Louis	M. H. Meyerhardt	OBG	2,322	1,356	3	7/1	3	50
Missouri Baptist Hospitals[a1]	St. Louis	J. B. O'Neill	OBG	2,227	.....	2	7/1	2	70
St. Louis City Hospitals[a1]	St. Louis	O. Schwarz and J. Hardy	OBG	1,225	3,192	6	7/1	3	...
St. Louis Maternity Hospital[a]	St. Louis	W. Allen	OBG	4,938	18,967	19	7/1	3	25
St. Luke's Hospitals[a1]	St. Louis	R. Paddock	OBG	1,830	1,140	3	7/1	2	75
St. Mary's Group of Hospitals[a1]	St. Louis	J. A. Hardy, Jr.	OBG	6,982	10,770	9	7/1	3	25
Montana Deaconess Hospitals[a]	Great Falls, Mont.	M. McPhail	OBG	1,229	.....	1	7/1	1	200
Lincoln General Hospitals[a1]	Lincoln, Neb.	H. E. Harvey	OBG	.....	.....	1	7/1	1	125
St. Elizabeth's Hospital[a]	Lincoln, Neb.		OB	.....	.....	...	.....	1	...
Creighton Memorial St. Joseph's Hospital[a]	Omaha	M. F. Grier	OBG	3,679	3,500	4	7/1	3	100
University of Nebraska Hospitals[a1,b1]	Omaha	C. Mayo	OBG	962	4,078	5	7/1	3	75
Cooper Hospital[a]	Camden, N. J.	A. B. Davis and G. B. German	OBG	4,726	12,582	5	7/1	1	83.33
Jersey City Hospitals[a]	Jersey City, N. J.	F. W. Bookrajan	Gyn	934	6,372	5	.....	3	95
Margaret Hague Maternity Hospital	Jersey City, N. J.	S. A. Cosgrove	OB	11,080	10,755	10	.....	3	83.50
Monmouth Memorial Hospitals[a1]	Long Branch, N. J.	R. A. MacKenzie	OB	1,871	927	2	7/1	2	150
Newark Beth Israel Hospital[a]	Newark, N. J.		Gyn	1,556	750	...	.....	...	...
Paterson General Hospitals[a1]	Paterson, N. J.	I. F. Thorn	OB	2,540	940	1	7/1	1	75
Albany Hospitals[a1]	Albany, N. Y.	A. J. Wallingford and T. O. Gamble	OBG	4,756	2,617	4	7/1	2	41.66
Anthony N. Brady Maternity Home	Albany, N. Y.	J. O'C. Kiernan	OB	2,959	3,502	3	7/1	2	60
Beth El Hospitals[a1]	Brooklyn	A. Koplowitz	OBG	4,370	4,352	4	7/1	2	100
Brooklyn Hospitals[a1]	Brooklyn	J. T. Wallace	OBG	2,720	5,706	2	7/1	3	55
Brooklyn Women's Hospital	Brooklyn	A. Koplowitz	OBG	1,886	3,289	3	7/1	1	100
Cumberland Hospitals[a1]	Brooklyn	S. Lubin	OBG	2,318	11,526	5	7/1	3	80
Greenpoint Hospitals[a1]	Brooklyn	W. C. Meacher	OBG	2,150	13,796	3	7/1	2	80
Jewish Hospitals[a1]	Brooklyn	F. V. Littauer	OBG	5,000	8,833	6	7/1	3	55
Kings County Hospitals[a1]	Brooklyn	R. Garlick and M. Glass	OBG	8,314	26,842	6	7/1	3	80
Long Island College Hospitals[a]	Brooklyn	F. P. Light	OBG	3,120	6,683	3	7/1	3	50
Methodist Hospitals[a1]	Brooklyn	H. C. Arken, Sr. and S. C. Hall	OBG	3,341	10,279	6	7/1	3	75
Norwegian Lutheran Deaconesses Home and Hospitals[a1]	Brooklyn	B. A. Harris	OB	1,877	3,502	3	7/1	1	50
St. Catherine's Hospitals[a1]	Brooklyn	C. A. Gordon	OBG	2,442	3,216	5	7/1	2	75
St. John's Hospitals[a1]	Brooklyn	C. W. Mueller	OBG	1,365	3,574	3	7/1	3	85
St. Mary's Hospitals[a]	Brooklyn	C. H. Loughran	OBG	2,614	6,317	3	7/1	2	60
Unity Hospitals[a1]	Brooklyn	S. L. Siegler	OBG	2,586	1,127	4	7/1	2	100
Buffalo General Hospitals[a1]	Buffalo	C. L. Randall	OBG	3,402	5,080	6	7/1	3	75
Children's Hospital[a]	Buffalo	C. L. Randall	OB	3,186	.....	3	7/1	2	75
Deaconess Hospitals[a1]	Buffalo		OBG	3,212	182	...	.....	1	100
Edward J. Meyer Memorial Hospitals[a1]	Buffalo	E. G. Winkler	OBG	1,754	8,389	4	7/1	3	100

Numerical and other references will be found on page 1215.

12. OBSTETRICS AND GYNECOLOGY—Continued

Name of Hospital	Location	Chief of Service	Residencies Approved	Inpatients Treated	Outpatient Visits	Asst., Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Salary (Month)
Millard Fillmore Hospital	Buffalo	L. F. McLean	OBG	5,741	287	7	7/1	3	50
Sisters' of Charity Hospital[83]	Buffalo	E. F. Winkler	OB	3,969	.....	4	7/1	3	150
Flushing Hospital and Dispensary[1]	Flushing, N. Y.	F. Carpenter	OBG	3,024	3,024	1	7/1	3	100
Mary Immaculate Hospital[2]	Jamaica, N. Y.	J. P. McManus and J. V. Rizzi	OB	2,371	2,974	1	7/1	1	75
Queens General Hospital[2]	Jamaica, N. Y.	F. Carpenter	OBG	3,297	9,891	2	7/1	3	....
Nassau Hospital[2]	Mineola, N. Y.	G. Borden	OB	2,491	.....	3	7/1	1	110
Bellevue Hospital Div. III—New York University[2]	New York City		OBG	.....	.....	..	.....	3	....
Beth Israel Hospital[2]	New York City	H. C. Falk	(OB)(G	2,989	4,045	2	7/1	1	50
Bronx Hospital[2]	New York City	M. Rosensohn	OB	2,614	5,574	3	7/1	1	75
			Gyn	.....	.....	..	.....	1	75
Flower and Fifth Avenue Hospitals[2]	New York City	L. S. Loiseaux	OBG	3,067	5,726	3	7/1	3	....
Fordham Hospital[2]	New York City	M. L. Brandt	OBG	1,786	6,979	3	7/1	2	80
French Hospital[2]	New York City	H. C. Williamson	OBG	2,370	5,508	3	7/1	2	30
Harlem Hospital[2]	New York City	P. M. Murray and A. C. Posner	OBG	7,436	39,334	6	1/1, 7/1	3	80
Hospital for Joint Diseases[2]	New York City	H. B. Davidson	Gyn	346	2,945	1	7/1	1	40
Jewish Memorial Hospital[2]	New York City	M. Brandt and S. Rosenfeld	OBG	2,348	2,692	1	7/1	1	100
Lenox Hill Hospital[2]	New York City	R. C. Van Etten and J. C. Elbroe	OBG	2,429	7,973	3	Varies	2	50
Lincoln Hospital[2]	New York City	H. C. Ingraham	OBG	6,114	16,670	9	7/1	2	50
Metropolitan Hospital[2]	New York City	H. B. Safford	OBG	3,287	18,147	3	7/1	2	80
Misericordia Hospital[2]	New York City	J. A. Kelly	OB	2,132	.....	1	7/1	1	100
Morrisania City Hospital[2]	New York City	M. J. Goodfriend	OB	1,628	8,677	3	7/1	2	80
Mount Sinai Hospital[2]	New York City	M. A. Goldberger	Gyn	1,702	8,502	3	7/1	2	50
New York City Hospital[2]	New York City	M. Rashbaum and R. J. Lowrie	OBG	2,654	18,019	5	7/1	2	80
New York Hospital[2]	New York City	R. G. Douglas	OBG	6,867	27,868	14	7/1	3	12.50
New York Infirmary[2]	New York City	W. Ragland	OB	1,374	5,857	2	7/1	2	75
New York Polyclinic Medical School and Hospital[2]	New York City	E. H. Dennen	OB	1,340	3,255	..	7/1	2	....
		D. N. Barrows	Gyn	1,225	3,017	2	7/1	2	50
Presbyterian Hospital[2, 3]	New York City	H. C. Taylor, Jr.	OBG	5,774	22,811	10	7/1	3	41.66
Roosevelt Hospital[2]	New York City	T. C. Peightal	Gyn	957	3,020	1	7/1	2	54.35
St. Clare's Hospital[2]	New York City	M. J. Jordan	OBG	2,058	4,973	4	7/1	3	25
St. Francis Hospital[2]	New York City	J. S. Labate	OBG	2,494	6,145	3	1/1, 7/1	3	75
St. Vincent's Hospital[2]	New York City	T. F. Lavell	OBG	2,848	7,810	3	7/1	2	100
Sydenham Hospital[2]	New York City	J. Jarco	OBG	2,152	5,447	2	7/1	2	150
University Hospital[2]	New York City	W. T. Dannreuther	Gyn	700	10,500	2	10/1	2	80
Woman's Hospital[2]	New York City	A. H. Aldridge	OBG	5,816	38,078	14	1/1, 7/1	3	10
United Hospitals[2]	Port Chester, N. Y.	A. Hawthorne	OB	1,242	500	1	7/1	1	100
Genesee Hospital[2]	Rochester, N. Y.	S. R. Snow	OBG	1,068	785	2	7/1	3	30
Highland Hospital[2]	Rochester, N. Y.	J. B. Loder	OB	.....	.....	2	7/1	1	100
Rochester General Hospital[2]	Rochester, N. Y.	M. Wilkinson	OB	2,804	7,022	1	7/1	1	85
Strong Memorial-Rochester Municipal Hospitals[2]	Rochester, N. Y.	K. M. Wilson	OBG	3,227	6,320	6	7/1	3	41.66
Ellis Hospital[2]	Schenectady, N. Y.	W. Mallia	OB	1,265	620	1	7/1	1	100
General Hospital[2]	Syracuse, N. Y.	R. Pieri	OBG	2,262	1,508	3	7/1	2	125
St. Joseph's Hospital[2]	Syracuse, N. Y.	L. Fourgher	OBG	2,291	926	3	7/1	1	50
Syracuse Memorial Hospital[2]	Syracuse, N. Y.	E. C. Hughes and C. E. Clark	OBG	3,856	4,671	6	7/1	3	125
Charlotte Memorial Hospital[2]	Charlotte, N. C.	G. S. Edgerton	OBG	2,138	1,886	1	7/1	1	75
Duke Hospital[2]	Durham, N. C.	B. Carter	OBG	2,929	15,111	14	7/1	3	83.33
Watts Hospital[2]	Durham, N. C.	R. B. Easley	OB	1,605	712	2	7/1	1	50
North Carolina Baptist Hospitals[2]	Winston-Salem, N. C.	F. R. Lock	OBG	2,250	4,333	5	7/1	3	41.66
City Hospital[2]	Akron, Ohio		OBG	4,534	2,412	5	7/1	3	100
Peoples Hospital[2]	Akron, Ohio	L. Da Sef	OBG	4,026	1,254	5	7/1	2	100
St. Thomas Hospital[2]	Akron, Ohio	F. Ettinger	OBG	2,741	1,940	3	7/1	2	125
Aultman Hospital[2]	Canton, Ohio	B. V. Antes	OBG	4,419	87	3	7/1	1	75
Mercy Hospital[2]	Canton, Ohio	R. K. Ramsayer	OBG	3,816	90	3	7/1	2	100
Bethesda Hospital[2]	Cincinnati	G. B. Haydon and R. D. Bryant	OBG	3,890	1,068	4	7/1	3	150
Cincinnati General Hospital[2]	Cincinnati	S. Garber	OB	3,707	7,175	6	7/1	1	....
City Hospital[2]	Cleveland	A. E. Bennett	OB	1,620	2,005	4	7/1	2	60
			Gyn	465	2,046	2	7/1	1	60
Fairview Park Hospital[2]	Cleveland	E. D. Saunders	OB	2,825	55	2	7/1	1	100
Lutheran Hospital[2]	Cleveland	R. S. Dial	OB	1,868	....	2	7/1	1	83
Mount Sinai Hospital[2]	Cleveland	L. H. Bickhed	OBG	3,517	3,411	2	7/1	3	100
St. Ann's Maternity Hospital	Cleveland	H. C. Wise	OB	2,124	738	4	7/1	1	100
St. John's Hospital[2]	Cleveland	J. V. Hriman	OBG	2,065	86	4	7/1	2	100
St. Luke's Hospital[2]	Cleveland	C. T. Hemmings	OBG	4,235	4,728	4	6/25	3	50
University Hospitals[2]	Cleveland	M. E. Black	OBG	6,861	28,788	17	7/1	3	25
Mount Carmel Hospital[2]	Columbus, Ohio	R. Daly	OB	3,022	1,040	3	7/1	2	125
Ohio State University Hospitals[2]	Columbus, Ohio	A. C. Barnes	OBG	3,538	13,564	6	7/1	3	30
St. Ann's Maternity Hospital	Columbus, Ohio	R. E. Krigbaum	OB	2,193	552	2	.....	2	100
White Cross Hospital[2]	Columbus, Ohio	M. Silbernagel	OB	2,651	.....	3	7/1	2	100
Miami Valley Hospital[2]	Dayton, Ohio	J. K. Hoerner	OB	1,540	.....	1	7/1	1	75
Lakewood Hospital[2]	Lakewood, Ohio	B. Wylie	OB	1,504	30	1	7/1	1	100
St. Rita's Hospital[2]	Lima, Ohio	V. A. Noble	OB	2,067	254	1	7/1	2	100
Maumee Valley Hospital[2]	Toledo, Ohio	M. W. Diethelm	OBG	826	1,148	1	7/1	1	150
Mercy Hospital[2]	Toledo, Ohio	R. C. King	OBG	3,947	777	4	7/1	2	125
St. Vincent's Hospital[2]	Toledo, Ohio	M. W. Diethelm	OBG	2,927	108	2	7/1	2	....
Toledo Hospital[2]	Toledo, Ohio	B. H. Carroll	OBG	3,579	1,288	4	7/1	3	100
St. Elizabeth's Hospital[2]	Youngstown, Ohio	A. J. Brandt	OBG	4,217	631	3	7/1	2	110
St. Anthony Hospital[2]	Oklahoma City	E. Rogers	OBG	4,708	1,986	2	7/1	2	75
University Hospital[2]	Oklahoma City	J. W. Keiso and J. B. Eskridge	OBG	1,882	10,670	2	7/1	3	85
Wesley Hospital[2]	Oklahoma City	J. W. Records	OBG	2,856	751	1	7/1	1	150
St. John's Hospital[2]	Tulsa, Okla.	P. N. Charbonnet	OBG	2,998	.....	3	.....	1	150
Emanuel Hospital[2]	Portland, Ore.	C. Fearl	OBG	6,574	.....	3	7/1	2	75
St. Vincent's Hospital[2]	Portland, Ore.	A. W. Holman	OB	2,495	.....	1	7/1	1	75
University of Oregon Medical School Hospitals and Clinics[2]	Portland, Ore.	H. C. Stearns	OBG	1,385	8,049	3	7/1	3	75
Abington Memorial Hospital[2]	Abington, Pa.	R. D. Porter and C. M. Turman	OBG	2,358	2,841	1	7/1	2	50
St. Luke's Hospital[2]	Bethlehem, Pa.	T. E. Schadt	OBG	2,740	441	2	7/1	2	125
Bryn Mawr Hospital[2]	Bryn Mawr, Pa.	C. A. Behney and J. L. Richards	OBG	257	.....	1	7/1	1	75
George F. Geisinger Memorial Hospital and Clinic[2]	Danville, Pa.	R. E. Nicodemus	OB	1,379	9,425	1	7/1	1	75

Numerical and other references will be found on page 1215.

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12. OBSTETRICS AND GYNECOLOGY—Continued

Name of Hospital	Location	Chief of Service	Residencies Approved	Inpatients Treated	Outpatient Visits	Asst., Res. and Residencies Offered*	Beginning of Service (1956)	Length of Assistant's Program (Years)	Beginning Stipend (Month)
Harrisburg Hospital[61]	Harrisburg, Pa.	W. P. Dailey	OB	2,291	2,387	2	7/1	1	100
Episcopal Hospital[61]	Philadelphia	J. H. Dogger	OBG	3,149	6,389	4	7/1	3	...
Frankford Hospital[61]	Philadelphia	G. C. Hanna	OBG	2,289	1,807	...	7/1	1	200
Germantown Dispensary and Hospital[61]	Philadelphia	Z. B. Newton	OBG	2,264	2,425	2	7/1	2	50
Graduate Hospital of the Univ. of Pennsylvania[3]	Philadelphia	R. Kimbrough	Gyn	700	1,562	2	7/1	3	...
Hahnemann Hospital[61]	Philadelphia	B. V. MacFadyen and N. F. Paxson	OBG	4,490	11,160	5	7/1	2	50
Hospital of the University of Pennsylvania[61]	Philadelphia	F. L. Payne and C. Bachman	OBG	3,553	4,521	7	Varies	3	...
Hospital of the Woman's Medical College of Pennsylvania[61]	Philadelphia	M. De W. Pettit and A. G. Taylor	OBG	3,213	7,819	5	7/1	3	60
Jefferson Medical College Hospital[3]	Philadelphia	L. C. Scheffey and T. L. Montgomery	OBG	5,316	22,161	7	.....	3	...
Jewish Hospital[61]	Philadelphia	.....	Gyn	3,179	.....	2	7/1	2	50
Lankenau Hospital[61]	Philadelphia	R. B. Wilson	OB	973	3,107	1	7/1	2	50
Mount Sinai Hospital[61]	Philadelphia	A. First and C. Wachs	OBG	2,133	2,648	2	7/1	2	50
Pennsylvania Hospital[3]	Philadelphia	C. B. Lull	OBG	34,564	17,302	6	.....	3	70
Philadelphia General Hospital[61]	Philadelphia	J. C. Ulery	OBG	5,346	17,172	5	7/1	3	75
Temple University Hospital[61]	Philadelphia	J. R. Willson	OBG	3,704	9,275	8	7/1	3	50
Women's Hospital[61]	Philadelphia	Dr. Ashton and Dr. Waugh	OBG	32,571	8,870	4	7/1	2	50
Pittsburgh Medical Center [1,62]	Pittsburgh	J. A. Hepp and H. A. Power	OBG	7,951	5,484	12	7/1	3	41.67
Mercy Hospital[61]	Pittsburgh	R. J. Frosby and R. A. Gillis	OBG	3,237	1,529	2	7/1	2	100
Montefiore Hospital[61]	Pittsburgh	H. Cohen	OB	1,449	2,042	1	7/1	1	50
Pittsburgh Hospital[61]	Pittsburgh	R. A. Gillis and E. A. Conti	OBG	2,085	821	1	8/1	1	100
St. Francis Hospital[61]	Pittsburgh	J. H. Carroll and J. A. Hepp	OBG	2,945	1,255	5	7/1	3	100
St. Margaret Memorial Hospital[3]	Pittsburgh	P. Titus	OBG	1,086	555	1	7/1	2	100
South Side Hospital[61]	Pittsburgh	J. A. New	OB	1,024	325	..	.....	1	...
		J. Hodgkiss	Gyn	300	225	..	.....	1	...
Wilkes-Barre General Hospital[61]	Wilkes-Barre, Pa.	J. J. Koryan	OB	3,342	600	1	7/1	1	100
Providence Lying-In Hospital[1]	Providence, R. I.	A. L. Potter	OB	7,949	11,780	2	Varies	1	110
Rhode Island Hospital[61]	Providence, R. I.	G. Waterman	Gyn	1,121	2,059	2	7/1	1	50
Roper Hospital[61]	Charleston, S. C.	F. G. Cain and L. A. Wilson	OBG	2,409	6,673	6	7/1	3	50
Columbia Hospital[61]	Columbia, S. C.	M. C. Hutchinson	OBG	2,662	2,721	3	7/1	1	75
Greenville General Hospital[61]	Greenville, S. C.	H. M. Allison and R. M. Dacus	OBG	4,230	2,837	3	7/1	2	100
Baroness Erlanger Hospital[61]	Chattanooga, Tenn.	E. Y. Buchner	OB	3,600	4,696	4	7/1	1	75
Baptist Memorial Hospital[61]	Memphis, Tenn.	W. W. Walker	OBG	4,497	1,329	3	7/1	2	75
John Gaston Hospital[61]	Memphis, Tenn.	F. E. Whitacre	OBG	5,065	17,450	10	7/1	3	...
St. Joseph Hospital[61]	Memphis, Tenn.	M. J. Roach	OBG	3,368	.....	4	7/1	2	100
George W. Hubbard Hospital of Meharry Medical College[61]	Nashville, Tenn.	M. Walker and W. F. James	OBG	1,278	3,941	3	7/1	2	100
Nashville General Hospital[3]	Nashville, Tenn.	R. S. Duke and M. S. Lewis	OBG	2,061	14,672	7	7/1	1	52.50
Vanderbilt University Hospital[61]	Nashville, Tenn.	J. C. Burch	OBG	2,048	8,978	10	7/1	3	55.41
Baylor University Hospital[61]	Dallas, Texas	W. E. Strother	OBG	7,278	3,148	4	7/1	3	50
Methodist Hospital[61]	Dallas, Texas	L. Hodges	OBG	3,352	.....	7	7/1	1	75
Parkland Hospital[61]	Dallas, Texas	W. F. Mengert	OBG	2,615	7,575	8	7/1	3	50
Hotel Dieu, Sisters Hospital (St. Joseph's Maternity Hospital)[61]	El Paso, Texas	R. J. Cardwell	OB	1,181	8,231	1	7/1	2	150
Harris Hospital[61]	Fort Worth, Texas	J. Bennett	OBG	4,427	2,270	3	7/1	1	100
University of Texas Medical Branch Hospa.[61]	Galveston, Texas	W. R. Cooke	OBG	2,150	10,250	5	7/1	3	100
John Sealy Hospital. Hermann Hospital[61]	Houston, Texas	C. Pugsley and A. L. Dippel	OBG	3,884	9,487	9	.....	3	50
Jefferson Davis Hospital[3]	Houston, Texas	H. Johnson	OB	3,217	18,092	..	7/1	1	75
			Gyn	1,302	8,439	6	7/1	1	75
Memorial Hospital [1]	Houston, Texas	J. K. Turbey and D. M. Paton	OBG	4,305	.....	1	1/1, 7/1	3	150
Methodist Hospital[61]	Houston, Texas	J. A. Wall and D. Wacheman	OBG	1,465	3,016	3	7/1	2	75
St. Joseph's Infirmary[3]	Houston, Texas	M. J. Meynier	OB	4,120	600	5	Varies	2	100
Thomas D. Dee Memorial Hospital[61]	Ogden, Utah	V. L. Ward	OBG	2,536	.....	2	7/1	3	100
Dr. W. H. Groves Latter-Day Saints Hospital[61]	Salt Lake City	W. M. Nebeker	OBG	5,279	.....	5	7/1	3	75
Holy Cross Hospital[3]	Salt Lake City	J. R. Wherritt	OB	2,373	.....	3	7/1	2	75
Salt Lake County General Hospital[61]	Salt Lake City	E. G. Holmstrom	OBG	1,012	2,493	3	7/1	1	50
Mary Fletcher Hospital[61]	Burlington, Vt.	O. N. Eastman	OBG	1,420	15	1	7/1	1	100
Arlington Hospital[1]	Arlington, Va.	J. B. Jacobs	OB	1,514	.....	1	7/1	1	100
University of Virginia Hospital[3]	Charlottesville, Va.	J. M. Nokes	OBG	2,741	7,229	4	7/1	3	67
Riverside Hospital[61]	Newport News, Va.	W. R. Payne	OBG	1,063	692	1	7/1	1	100
De Paul Hospital[61]	Norfolk, Va.	J. R. Kight	OBG	2,241	1,014	2	7/1	1	100
Norfolk General Hospital[61]	Norfolk, Va.	C. J. Andrews	OB	1,922	567	3	7/1	1	125
Medical College of Virginia Hospital Division[61]	Richmond, Va.	H. H. Ware, Jr.	OB	3,250	10,787	10	.....	3	...
King County Hospital, Unit No. 1 (Harborview)	Seattle	R. R. De Alvarez	OBG	2,130	6,787	2	7/1	3	90
Providence Hospital[61]	Seattle	J. Clancy	OB	2,479	755	1	7/1	1	100
Swedish Hospital[61]	Seattle	W. W. Bell	OBG	4,663	.....	1	.....	2	100
Virginia Mason Hospital[61]	Seattle	R. N. Rutherford	OB	1,969	.....	1	7/1	1	100
St. Luke's Hospital[3]	Spokane	R. E. Gilbert	OBG	453	.....	1	.....	1	...
St. Mary's Hospital[61]	Huntington, W. Va.	E. J. Humphrey	OB	2,046	651	1	7/1	1	100
State of Wisconsin General Hospital[61]	Madison, Wis.	J. W. Harris	OBG	946	6,790	3	1/1, 7/1	3	95
Milwaukee County Hospital[61,63]	Milwaukee	R. E. Cron	OBG	2,600	2,172	3	7/1	3	175.50
St. Joseph's Hospital[3]	Milwaukee	G. Kilkenny	OBG	4,286	.....	3	7/1	3	75
St. Mary's Hospital[3]	Milwaukee	J. D. Owen	OB	4,168	342	2	7/1	1	100
Kapiolani Maternity and Gynecological Hospital[1]	Honolulu, Hawaii	I. Bachman and K. S. Tom	OBG	5,373	1,900	4	Varies	3	100
Queen's Hospital[61]	Honolulu, Hawaii	K. S. Tom and R. Sakimoto	OBG	2,309	1,717	3	7/1	2	75

Numerical and other references will be found on page 1215.

13. OCCUPATIONAL MEDICINE

The following services are approved by the Council on Medical Education and Hospitals
Hospitals, 1 Assistant Residencies and Residencies, 2

Name of Hospital	Location	Chief of Service	Inpatients Treated	Deaths, Autopsies	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Saginaw General Hospital[a1]	Saginaw, Mich	R. D. Mudd and J. E. Manning	.....	.....	2	7/1	2	75

14. OPHTHALMOLOGY

The following services are approved by the Council on Medical Education and Hospitals
Hospitals, 100 Assistant Residencies and Residencies, 403

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
United States Army							
Letterman General Hospital[a]	San Francisco	R. Maxwell	527	8,161	4	1/1, 7/1	n
Fitzsimmons General Hospital[a]	Denver	A. J. Vadala	261	9,190	3	1/1, 7/1	n
Army Medical Center[a2]	Washington, D. C.	A. Lowrey, Jr.	343	28,944	9	7/1	n
Brooke Army Medical Center[a1]	San Antonio, Texas	E. M. Altfather	576	10,087	5	7/1	n
Gorgas Hospital[a]	Ancon, C. Z.	H. W. Shreck	201	10,664	3	7/1	n
United States Navy							
U. S. Naval Hospital[a]	Long Beach, Calif.	R. C. Boyden	233	2,569	2	Varies	n
U. S. Naval Hospital[a]	Oakland, Calif.	A. C. Hohn	206	617	2	.....	n
U. S. Naval Hospital[a]	San Diego, Calif.	R. H. Ward	445	15,370	3	.....	n
U. S. Naval Hospital[a1]	Bethesda, Md.	A. J. Delaney	2,244	1,543	4	Varies	n
U. S. Naval Hospital[a1]	St. Albans, N. Y.	W. L. Berkley	648	3,982	2	.....	n
U. S. Naval Hospital[a1]	Philadelphia	F. Harbert	.....	.....	3	1/1, 7/1	n
United States Public Health Service							
U. S. Marine Hospital[a]	New Orleans	L. M. Smith	156	3,004	1	7/1	n
U. S. Marine Hospital[a]	Seattle	H. U. Maneus	913	5,852	3	7/1	n
Veterans Administration							
Veterans Admin. Center[a]	Los Angeles	C. S. Mumma	227	1,432	2	7/1	n
Veterans Admin. Hospital	San Francisco	D. Harrington and M. Fine	174	2,685	3	7/1	n
Veterans Admin. Hospital[a1]	Van Nuys, Calif.	C. C. Struble	206	1,301	2	1/1, 7/1	n
Veterans Admin. Hospital	Chamblee, Ga.	F. P. Calhoun, Jr.	249	902	1	7/1	n
Veterans Admin. Hospital	Hines, Ill.	W. A. Mann	533	.....	2	1/1, 7/1	n
Veterans Admin. Center[a]	Wadsworth, Kan.	W. I. Hinkle	224	.....	2	1/1, 7/1	n
Veterans Admin. Hospital[a]	Louisville, Ky.	W. Schutz	563	2,225	2	.....	n
Veterans Admin. Hospital[a]	New Orleans	G. M. Halk	187	648	1	7/1	n
Veterans Admin. Hospital[a]	Minneapolis	H. Hanson	1,644	980	3	Varies	n
Veterans Admin. Hospital[a]	Jefferson Bks., Mo.	M. Green	261	.....	2	7/1	n
Veterans Admin. Hospital[a]	New York City	A. G. De Voe	349	2,656	4	1/1, 7/1	n
Veterans Admin. Hospital[a]	Staten Island, N. Y.	F. Constantine	369	1,144	3	7/1	n
Veterans Admin. Hospital[a]	Cleveland	J. E. L. Keyes	419	746	2	7/1	n
Veterans Admin. Hospital[a]	Oklahoma City	L. E. Ensenhiser	185	.....	1	5/1	n
Veterans Admin. Hospital	Portland, Ore.	A. R. Dykman	183	676	1	1/1, 7/1	n
Veterans Admin. Hospital	Aspinwall, Pa.	J. G. Linn	468	.....	3	7/1	n
Veterans Admin. Hospital	Memphis, Tenn.	W. F. Klotz	.....	721	2	.....	n
Veterans Admin. Hospital[a]	Dallas, Texas	R. S. Tindall	98	.....	1	7/1	n
Veterans Admin. Hospital[a]	McKinney, Texas	S. B. Gostin	101	1,925	1	7/1	n
Veterans Admin. Hospital	Richmond, Va.	E. W. Perkins	133	1,404	3	7/1	n
Veterans Admin. Center[a]	Milwaukee	F. Raine	177	948	3	7/1	n
Nonfederal							
Jefferson-Hillman Hospitals[a]	Birmingham, Ala.	A. Callahan	1,312	8,943	4	7/1	60
Arkansas Baptist Hospitals	Little Rock, Ark.	K. W. Cosgrove	430	.....	1	7/1	100
General Hospital of Fresno County[a1]	Fresno, Calif.	H. Awtrey	.....	4,582	2	7/1	216
Los Angeles County Hospital[a1]	Los Angeles	W. J. Endres	1,058	14,739	4	Varies	165
White Memorial Hospital[a]	Los Angeles	M. W. Nugent	199	9,230	2	7/1	120
San Diego County General Hospital[a]	San Diego, Calif.	L. Mignve	157	4,242	1	7/1	150
Greens' Eye Hospital	San Francisco	V. V. Sinjian	646	23,911	5	2/1	30
San Francisco Hospital[a1]	San Francisco	.....	.....	.....	2	7/1	175
Stanford University Hospitals[a]	San Francisco	A. E. Maumenee	771	8,629	5	7/1	50
University of California Hospitals[a]	San Francisco	F. C. Cordes	356	12,172	4	7/1	75
University of Colorado Medical Center Colorado General Hospitals	Denver	R. W. Danielson	134	7,630	4	7/1	75
Grace-New Haven Community Hospital, New Haven Unit (University Service)[a1]	New Haven, Conn.	E. Blake	400	6,300	1	7/1	60
Episcopal Eye, Ear and Throat Hospital[a,13]	Washington, D. C.	G. Y. Simpson	.....	.....	6	4/1	.....
Gallinger Municipal Hospitals[a]	Washington, D. C.	E. J. Cummings	153	3,984	2	7/1	100
Grady Memorial Hospitals[a]	Atlanta, Ga.	A. V. Hallum	407	10,810	5	7/1	90
Chicago Eye, Ear, Nose and Throat College and Hospital	Chicago	.....	.....	.....	..	.....	..
Cook County Hospitals[a]	Chicago	D. T. Vail	517	16,180	6	1/1, 7/1	32
Illinois Eye and Ear Infirmary[a]	Chicago	W. F. Hughes	2,500	60,000	21	7/1	50
Mercy Hospital-Loyola University Clinics[a]	Chicago	L. G. Hoffman	96	2,661	1	7/1	15
Michael Reese Hospitals[a]	Chicago	T. Shapira	505	4,539	2	1/1, 7/1	15
Passavant Memorial Hospitals	Chicago	D. Vail	570	575	2	1/1, 7/1	...
Presbyterian Hospitals	Chicago	J. M. Donegan	203	6,267	2	.....	...
Provident Hospitals	Chicago	W. M. Jones	104	3,732	2	7/1	50
Research and Educational Hospitals[a1]	Chicago	W. F. Hughes	249	9,571	2	7/1	55
St. Joseph Hospitals	Chicago	J. Donegan	.....	777	1	4/1	75
St. Luke's Hospitals[a]	Chicago	R. C. Gamble	331	.....	1	7/1	75
University of Chicago Clinics[a]	Chicago	A. C. Krause	156	12,012	5	7/1	15
Wesley Memorial Hospitals[a]	Chicago	W. A. Mann	343	.....	1	7/1	15
Woodlawn Hospitals[a]	Chicago	F. M. Whitsell	220	7,500	1	7/1	150
Indianapolis General Hospitals[a]	Indianapolis	J. M. Masters	228	7,304	3	7/1	80

Numerical and other references will be found on page 1215.

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14. OPHTHALMOLOGY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Asst., Res. and Asst. Res. Offered *	Beginning of Service (1950)	Beginning Salaries (Month)
Indiana University Medical Center[1]	Indianapolis	R. Masters	264	3,698	4	7/1	66.33
University Hospitals[1]	Iowa City	C. S. O'Brien	1,444	5,024	6	.....	...
Louisville General Hospital[1]	Louisville, Ky.	C. D. Townes	173	6,375	2	7/1	50
Charity Hospital of Louisiana[1]	New Orleans	J. H. Larose	1,403	24,234	..	7/1	25
Eye, Ear, Nose and Throat Hospital[1]	New Orleans	W. R. Buffington	1,256	2,224	6	7/1	...
Touro Infirmary[1]	New Orleans	A. Braunstein	109	2,621	1	7/1	25
Baltimore Eye, Ear and Throat Charity Hospital[1]	Baltimore	C. A. Clapp	804	13,696	3	7/1	10
Johns Hopkins Hospital[1]	Baltimore	A. C. Woods	1,456	19,504	6	7/1	41.66
University Hospital[1]	Baltimore	F. K. Knowles, Jr.	42	4,567	1	7/1	75
Boston City Hospitals[1]	Boston	J. J. Regan	594	16,591	7	1/1, 7/1	110
Massachusetts Eye and Ear Infirmary	Boston	E. B. Dunphy	3,267	45,242	11	.....	40
University Hospitals[1]	Ann Arbor, Mich.	F. B. Fralick	344	10,974	8	7/1	150.00
City of Detroit Receiving Hospitals[1]	Detroit	A. D. Roedemann	409	17,404	7	7/1	150.00
Grace Hospitals[1]	Detroit	R. S. Goux	1,943	.....	1	7/1	75
Harper Hospitals[1]	Detroit	R. H. Pino	1,223	6,308	4	7/1	110
Henry Ford Hospitals[1]	Detroit	E. L. Whitney	328	18,706	4	7/1	200
Wayne County General Hospital and Infirmary[1]	Eloise, Mich.	F. T. May	430	5,633	2	7/1	225
Minneapolis General Hospitals[1]	Minneapolis	W. K. Haven	160	3,951	2	1/1, 7/1	125
University of Minnesota Hospitals[1]	Minneapolis	E. Hansen	218	6,419	11	7/1	125
Mayo Foundation	Rochester, Minn.	W. Rucker	.....	.....	12	Varies	92.30
Ancker Hospitals[1]	St. Paul	J. Hilger	121	3,556	1	7/1	91.50
Charles T. Miller Hospitals[1]	St. Paul	E. Burch	615	3,558	3	7/1	115
St. Louis County Hospitals[1]	Clayton, Mo.	D. Bisno	76	3,403	2	7/1	80
Kansas City General Hospital No. 1[1]	Kansas City, Mo.	A. N. Lemoine, Jr.	256	4,408	2	7/1	50
Barnes Hospitals[1]	St. Louis	L. T. Post	1,908	18,253	7	7/1	10
Homer G. Phillips Hospitals[1]	St. Louis	L. T. Post	129	2,573	..	7/1	98
St. Louis City Hospitals[1]	St. Louis	D. Bisno and R. Mattis	189	4,084	2	7/1	...
St. Mary's Group of Hospitals[1]	St. Louis	W. H. Luedke	276	7,600	3	7/1	35
University of Nebraska Hospitals[1]	Omaha	J. H. Judd	150	1,882	2	7/1	75
Jersey City Hospitals[1]	Jersey City, N. J.	F. X. Brophy	369	7,883	5	Varies	35
Newark Eye and Ear Infirmary	Newark, N. J.	.....	1,133	7,388	2	1/1, 7/1	...
Brooklyn Eye and Ear Hospital	Brooklyn	E. C. Fiore	2,478	51,446	6	1/1, 7/1	...
Kings County Hospitals[1]	Brooklyn	W. Mochle	424	12,732	4	1/1, 7/1	60
Long Island College Hospitals[1]	Brooklyn	M. A. Lasky	134	4,641	2	7/1	50
Buffalo General Hospital[1]	Buffalo	I. J. Koenig	268	1,874	2	7/1	25
Edward J. Meyer Memorial Hospitals[1]	Buffalo	I. J. Koenig	149	5,894	4	7/1	100
Millard Fillmore Hospitals[1]	Buffalo	F. B. Hague	140	.....	.....	.....	...
Queens General Hospitals[1]	Jamaica, N. Y.	T. D'Angelo	230	6,404	1	8/15	...
New Rochelle Hospital[1]	New Rochelle, N. Y.	H. N. Stevenson	.....	.....	..	.....	...
Bellevue Hospital, Div. III— New York University[1]	New York City	.....	.....	.....	..	.....	...
Beth Israel Hospitals[1]	New York City	E. B. Gresser	308	5,430	1	7/1	50
Bronx Eye and Ear Infirmary	New York City	S. J. Gould	860	16,458	1	7/1	50
Goldwater Memorial Hospitals[1]	New York City	J. W. Smith	1,035	1,646	3	7/1	70
Harlem Eye and Ear Hospital[1]	New York City	C. B. Meding	481	14,849	4	1/1, 7/1	...
Lenox Hill Hospitals[1]	New York City	J. J. Reid	316	5,177	1	Varies	50
Manhattan Eye, Ear and Throat Hospital[1]	New York City	R. T. Paton	2,374	74,330	10	1/1, 7/1	...
Metropolitan Hospitals[1]	New York City	C. A. Turtz	66	4,553	1	7/1	130
Montefiore Hospitals[1]	New York City	S. Gartner	77	.....	..	.....	...
Mount Sinai Hospitals[1]	New York City	J. Minsky	450	11,076	2	7/1	50
New York City Hospitals[1]	New York City	I. Givner	167	4,780	2	7/1	130
New York Eye and Ear Infirmary[1]	New York City	C. Berens	2,833	68,593	15	10/1	...
New York Hospitals[1]	New York City	J. McLean	505	15,018	4	7/1	25
New York Polyclinic Medical School and Hospitals[1]	New York City	S. J. Kapetzky	177	5,130	..	7/1	50
Presbyterian Hospitals[1,52]	New York City	J. H. Dunnington	2,333	30,767	9	7/1	41.66
St. Luke's Hospitals[1]	New York City	W. G. Frey	170	7,845	1	1/1, 7/1	50
University Hospitals[1]	New York City	A. Braley	292	6,591	3	7/1	80
Rochester General Hospitals[1]	Rochester, N. Y.	E. R. Verbeck	191	1,402	1	7/1	85
St. Mary's Hospitals[1]	Rochester, N. Y.	C. Sullivan	244	1,301	1	7/1	125
Strong Memorial-Rochester Municipal Hospitals[1]	Rochester, N. Y.	J. F. Gipser	302	5,579	2	7/1	41.66
Sea View Hospital[1]	Staten Island, N. Y.	S. Saltzman	1,014	.....	1	7/1	150
Grasslands Hospitals[1]	Valhalla, N. Y.	C. Wood	109	5,124	2	7/1	125
Duke Hospitals[1]	Durham, N. C.	W. B. Anderson	374	3,855	5	7/1	83.33
McPherson Hospital[1]	Durham, N. C.	.....	1,567	40,060	2	Varies	25
North Carolina Baptist Hospitals[1]	Winston-Salem, N. C.	W. Roberts	154	3,311	1	8/1	41.66
Cincinnati General Hospitals[1]	Cincinnati	D. Lyle	402	9,924	3	7/1	...
City Hospitals[1]	Cleveland	G. L. Miller	182	5,473	2	1/1, 7/1	70
Cleveland Clinic Hospital[1]	Cleveland	R. J. Kennedy	341	23,243	3	7/1	100
St. Luke's Hospitals[1]	Cleveland	M. W. Jacoby	256	2,876	1	6/25	60
University Hospitals[1]	Cleveland	A. B. Duff	948	3,776	3	7/1	25
Ohio State University Hospitals[1]	Columbus, Ohio	A. M. Culler	272	5,800	4	7/1	50
University Hospitals[1]	Oklahoma City	J. P. McGee	304	4,697	1	7/1	35
University of Oregon Medical School Hospitals and Clinics[1]	Portland, Ore.	K. C. Swan	290	12,515	6	7/1	75
George F. Geisinger Memorial Hospitals[1]	Danville, Pa.	C. H. Jacobs	217	9,820	2	7/1	75
Graduate Hospital of the University of Pennsylvania[1]	Philadelphia	E. B. Spaeth	827	2,604	3	7/1	...
Hospital of the University of Pennsylvania[1,52]	Philadelphia	F. H. Adler	856	9,789	9	Varies	...
Jefferson Medical College Hospital[1]	Philadelphia	.....	186	5,349	2	.....	...
Philadelphia General Hospitals[1]	Philadelphia	G. J. Dublin	158	4,498	2	7/1	75
Temple University Hospitals[1]	Philadelphia	G. G. Gibson	286	3,583	3	7/1	50
Wills Hospital[1]	Philadelphia	.....	4,311	104,869	12	Varies	...
Pittsburgh Medical Center[49]	Pittsburgh	J. G. Linn	1,325	10,546	4	1/1, 7/1	41.66
Robert Packer Hospitals[1]	Sayre, Pa.	.....	.....	.....	..	.....	...
Roper Hospitals[1]	Charleston, S. C.	J. F. Townsend	1,149	2,702	..	7/1	50
Knoxville General Hospital	Knoxville, Tenn.	H. F. Christenberry	104	713	1	7/1	16
John Gaston Hospitals[1]	Memphis, Tenn.	P. M. Lewis	257	5,084	..	.....	...
Memphis Eye, Ear, Nose and Throat Hospital	Memphis, Tenn.	D. H. Anthony	.....	.....	4	1/1, 7/1	40
Nashville General Hospitals[1,51]	Nashville, Tenn.	N. B. Morris	.....	.....	..	.....	...
Parkland Hospitals[1]	Dallas, Texas	J. G. Jones	126	2,758	..	7/1	50
University of Texas Medical Branch Hospitals	Galveston, Texas	.....	.....	.....	..	.....	...
John Sealy Hospitals[1]	.....	.....	.....	.....	..	.....	...
Jefferson Davis Hospitals[1]	Houston, Texas	E. L. Goar	292	5,324	2	7/1	25

Numerical and other references will be found on page 1215.

14. OPHTHALMOLOGY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Asst., Res. and Residencies Offered*	Beginning of Service (1950)	Beginning Stipend (Month)
University of Virginia Hospital[2]	Charlottesville, Va	E. Burton	321	3,500	3	7/1	...
Medical College of Virginia Hospital Division[2]	Richmond, Va	R. H. Courtney	491	5,585	3	.....	...
Gill Memorial Eye, Ear and Throat Hospital	Roanoke, Va	E. G. Gill	229	3,088	2	1/1	100
King County Hospital, Unit No. 1 (Harborview)[2]	Seattle	C. D. F. Jensen	137	1,481	1	7/1	90
State of Wisconsin General Hospital[2,13]	Madison, Wis	F. A. Davis	.....	.....	4	1/1, 7/1	25
St. Joseph's Hospital[2,13]	Marshfield, Wis	L. A. Coppe	.....	.....	...	.....	...
Milwaukee County Hospital[2]	Milwaukee	E. F. Carl	425	6,308	3	7/1	175

15. ORTHOPEDIC SURGERY

The following services are approved by the Council and the American Board of Orthopedic Surgery. Hospitals, 257 Assistant Residencies and Residencies, 779

Name of Hospital	Location	Chief of Service	Type of Training**	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
United States Army											
Letterman General Hospital[2]	San Francisco	O. B. Bollbaugh	AFS	2,006	2,232	10	8	8	1/1, 7/1	2	n
Fitzsimmons General Hospital[2]	Denver	H. S. McBurney	AFS	1,227	3,113	5	5	6	1/1, 7/1	2	n
Army Medical Center[2,13]	Washington, D. C.	A. W. Spittler	AFS	912	4,169	3	2	14	7/1	2	n
Brooke Army Medical Center[2,13]	San Antonio, Texas	M. S. Thompson	AFS	2,280	6,236	8	4	8	7/1	2	n
Tripler General Hospital[2]	Moanalua, T. H.	E. A. Bray	AF	1,120	2,307	..	..	..	7/1	1½	n
United States Navy											
U. S. Naval Hospital[2]	Long Beach, Calif.	R. R. Myers	AF	1,807	4,650	..	..	2	.....	1½	n
U. S. Naval Hospital[2]	Oakland, Calif.	C. R. Carr	AFS	1,435	2,400	4	3	2	.....	2	n
U. S. Naval Hospital[2]	San Diego, Calif.	F. J. Legge	AF	1,060	1,852	4	3	..	.....	1½	n
U. S. Naval Hospital[2]	Bethesda, Md.	F. P. Kreuz	AFS	1,460	4,321	2	1	4	Varies	2	n
U. S. Naval Hospital[2]	Chelsea, Mass.	W. C. Roland	AFS	770	2,520	4	2	..	.....	2	n
U. S. Naval Hospital[2]	St. Albans, N. Y.	E. H. Osterloh	AFS	953	1,300	2	1	5	.....	2	n
U. S. Naval Hospital[2]	Philadelphia	C. F. Morrison	AFS	1,362	4,221	11	3	1	1/1, 7/1	2	n
United States Public Health Service											
U. S. Marine Hospital[2]	Stapleton, S. I., N. Y.	F. J. Krueger	AFS	1,706	6,201	3	1	5	7/1	2	n
Federal Security Agency											
Freedmen's Hospital[2]	Washington, D. C.	J. S. Nevinser	ACFS	250	5,188	10	4	1	7/1	3	n
Veterans Administration											
Veterans Admin. Center[2]	Los Angeles	R. Mazet, Jr.	AFS	711	2,805	..	..	8	7/1	2	n
Veterans Admin. Hospital	San Francisco	J. J. Loutzenheiser and F. J. Cox	AFS	372	1,167	1	1	3	7/1	2	n
Veterans Admin. Hospital[2]	Van Nuys, Calif.	J. H. Abbe	AFS	962	1,729	3	2	5	Varies	2	n
Veterans Admin. Hospital[2]	Fort Logan, Colo.	M. E. Gibbons	AF	982	.....	..	..	2	1/1	1½	n
Veterans Admin. Hospital	Chamblee, Ga.	R. P. Kelley	AFS	600	96	5	2	4	7/1	2	n
Veterans Admin. Hospital	Hines, Ill.	H. A. Sofield	AFS	3,625	.....	9	4	14	1/1, 7/1	2	n
Veterans Admin. Hospital[2]	Indianapolis	H. L. Egbert	AF	425	.....	5	4	1	1/1, 7/1	1½	n
Veterans Admin. Hospital	Des Moines, Iowa		AF	.....	.....	..	..	..	.....	1½	n
Veterans Admin. Center[2]	Wadsworth, Kan.	W. H. Sneed	AFS	267	7	6	5	5	1/1, 7/1	2	n
Veterans Admin. Hospital[2]	Louisville, Ky.	J. Lyford III	AFS	267	2,000	3	3	5	.....	2	n
Veterans Admin. Hospital[2]	New Orleans	R. H. Aldredge	AFS	1,071	824	3	1	3	7/1	2	n
Veterans Admin. Hospital	Fort Howard, Md.	F. W. Bank	AFS	338	237	..	..	4	7/1	2	n
Veterans Admin. Hospital (West Roxbury)	Boston	J. Barr	AS	300	1,320	2	1	2	1/1, 7/1	1½	n
Veterans Admin. Hospital[2]	Framingham, Mass.	H. H. Paxton	AFS	727	950	1	1	2	7/1	2	n
Veterans Admin. Hospital	Dearborn, Mich.		A	.....	.....	..	..	..	.....	1	...
Veterans Admin. Hospital[2]	Minneapolis	E. T. Evans	AFS	2,000	2,086	6	5	8	Varies	2	n
Veterans Admin. Hospital[2]	Jefferson Bks., Mo.		AFS	765	.....	3	3	5	7/1	2	n
Veterans Admin. Hospital	Lincoln, Neb.	J. K. M. Thomson	AFS	962	.....	3	2	5	7/1	2	n
Veterans Admin. Hospital[2]	Albuquerque, N. Mex.	R. L. Carlson	AF	332	.....	..	..	1	7/1	1½	n
Veterans Admin. Hospital[2]	New York City	P. D. Wilson	AFS	765	1,557	7	5	6	1/1, 7/1	2	n
Veterans Admin. Hospital[2]	Staten Island, N. Y.	D. M. Bosworth	A	544	1,500	2	2	2	7/1	1	n
Veterans Admin. Hospital[2]	Cleveland	W. H. McGaw	AFS	1,026	449	1	..	7	7/1	2	n
Veterans Admin. Hospital[2]	Oklahoma City	W. K. West	AFS	436	.....	1	1	4	7/1	2	n
Veterans Admin. Hospital	Portland, Ore.	H. C. Blair	AFS	618	997	3	2	3	1/1, 7/1	2	n
Veterans Admin. Hospital	Aspinwall, Pa.	D. I. Schwartz	AFS	367	.....	4	2	4	7/1	2	n
Veterans Admin. Hospital	Columbia, S. C.	K. M. Lippert	AFS	600	.....	4	2	6	.....	2	n
Veterans Admin. Hospital[2]	Memphis, Tenn.	D. M. Street	AFS	1,052	1,630	1	..	4	7/1	2	n
Veterans Admin. Hospital[2]	Dallas, Texas		AF	355	.....	1	1	4	1/1	1½	n
Veterans Admin. Hospital[2]	McKinney, Texas	T. M. Anderson	AFS	620	.....	1	1	5	7/1	2	n
Veterans Admin. Hospital[2]	Salt Lake City, Utah	J. A. Gubler	A	461	1,200	1	..	1	7/1	1	n
Veterans Admin. Hospital[2]	Richmond, Va.	R. D. Butterworth	AF	350	734	1	1	3	7/1	1½	n
Veterans Admin. Center	Milwaukee	P. L. Carnesale	AFS	1,004	1,019	3	1	5	7/1	2	n
Nonfederal											
Jefferson-Hillman Hospital[2]	Birmingham, Ala.	J. Sherrill	ACFS	1,750	4,635	25	10	2	7/1	3	50
Employees' Hospital of Tennessee Coal, Iron and Railroad Company*	Fairfield, Ala.	C. H. Wilson	AFS	600	10,324	5	1	2	7/1	2	225
City Hospital[2]	Mobile, Ala.	W. C. Hannon	ACF	736	1,172	14	7	5	7/1	1½	100
Arkansas Children's Home and Hospital	Little Rock, Ark.	W. V. Newman	C	512	632	..	..	2	1/1, 7/1	1	240
Children's Hospital[2]	Los Angeles	J. C. Wilson	C	304	5,634	..	..	2	1/1, 7/1	1	214.07
Los Angeles County Hospital[2]	Los Angeles	V. P. Thompson	ACFS	4,430	23,526	140	16	12	Varies	3	165
Orthopaedic Hospital	Los Angeles	A. Brockway	ACFS	2,449	54,471	2	2	5	7/1	4	150
White Memorial Hospital[2]	Los Angeles	G. M. Taylor	AFS	548	4,919	4	1	2	.....	2	120
Highland Alameda County Hospital[2]	Oakland, Calif.	L. Barnard	AF	650	.....	60	12	3	.....	1½	135
Permanente Foundation Hospital[2]	Oakland, Calif.	P. H. Hamon	F	1,065	7,710	4	1	..	.....	¼	...
Samuel Merritt Hospital	Oakland, Calif.	H. H. Hitchcock	AFS	875	.....	1	1	2	.....	2	100
San Diego County General Hospital[2]	San Diego, Calif.	M. B. Coutts	AF	460	3,000	25	4	1	7/1	1½	150
Children's Hospital	San Francisco	L. Abbott	C	383	1,500	..	..	2	7/1	1	50
Franklin Hospital[2]	San Francisco	L. C. Abbott and F. C. Rost	A	720	.....	1	1	3	7/1	1	100
St. Joseph's Hospital	San Francisco	R. Soto-Hall	A	1,218	56	7	0	1	7/1	1	100
St. Mary's Hospital	San Francisco	J. Loutzenhiser	AF	1,115	600	5	4	2	7/1	1½	100

Numerical and other references will be found on page 1215.

15. ORTHOPEDIC SURGERY—Continued

Name of Hospital	Location	Chief of Service	Type of Training[14]	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered[8]	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
San Francisco Hospital[a1,39]	San Francisco	....	AF	.....	.....	..	..	2	7/1	1½	175
Shriners Hospital for Crippled Children	San Francisco	F. C. Bost	C	219	3,119	..	..	2	4/1	1	100
Stanford University Hospital[a1,37]	San Francisco	D. E. King	ACFS	697	5,708	5	2	1	7/1	3	50
University of California Hospital[a1]	San Francisco	L. C. Abbott	A	197	6,809	..	..	2	7/1	1	75
Santa Clara County Hospital[a]	San Jose, Calif.	N. Ahnlund	AF	348	3,241	20	8	2	7/1	1½	235
Children's Hospital[1]	Denver	W. F. Stanek	C	509	3,480	..	..	2	1/1, 7/1	1	50
University of Colorado Medical Center											
Colorado General Hospital[a]	Denver	H. I. Bernard	AFS	497	2,007	9	3	2	7/1	2	75
Denver General Hospital[a1,9]	Denver	I. E. Hendryson	AF	716	2,083	47	26	1	7/1	1½	75
Corwin Hospital[a1]	Pueblo, Colo.	D. W. Boyer	F	744	15,998	8	..	..	7/1	½	75
Hartford Hospital[a1]	Hartford, Conn.	M. M. Pike	AFS	1,538	694	20	7	2	7/1	2	50
Grace-New Haven Community Hospital New Haven Unit (University Service)[a1]	New Haven, Conn.	N. Shutkin	AFS	614	4,550	11	5	1	7/1	2	40
Hospital of St. Raphael[a1]	New Haven, Conn.	D. O. Connor	AF	443	.....	17	3	1	7/1	1½	75
Newington Home and Hospital for Crippled Children	Newington, Conn.	C. W. Goff	C	415	3,161	..	..	2	1/1, 7/1	1	100
Alfred I. DuPont Institute of the Nemours Foundation[1]	Wilmington, Del.	A. R. Shands, Jr.	C	180	2,377	2	1	3	....	1	100
Gallinger Municipal Hospital[a1,31]	Washington, D. C.	M. C. Cobey	ACFS	585	6,965	16	3	5	7/1	3	100
Hope Haven Hospital	Jacksonville, Fla.	F. Fort	C	296	857	5	1	1	7/1	1	100
Jackson Memorial Hospital[a1]	Miami, Fla.	A. H. Weiland	ACF	1,806	3,332	34	11	4	7/1	2½	60
Grady Memorial Hospital[a1]	Atlanta, Ga.	T. P. Goodwyn	AFS	875	8,841	33	8	2	7/1	2	40
University Hospital[a]	Augusta, Ga.	P. B. Wright	ACFS	634	2,837	18	2	3	7/1	3	40
Scottish Rite Hospital for Crippled Children	Decatur, Ga.	J. H. Kite	C	307	3,125	1	1	1	1/1	1	150
†Emory University Hospital[a]	Emory University, Ga.	R. P. Kelly	C	386	.....	6	1	1	7/1	1	50
Children's Memorial Hospital	Chicago	E. L. Compere	C	.....	2,014	..	..	1	1/1, 7/1	1	75
Cook County Hospital[a1]	Chicago	D. S. Miller	AF	652	8,209	20	5	3	1/1, 7/1	1½	32
Illinois Masonic Hospital[a1]	Chicago	Dr. W. Fischer and Dr. Pease	AF	188	3,938	..	..	1	1/1, 7/1	1½	50
Mercy Hospital-Loyola University Clinics[a1]	Chicago	C. Scuderi	F	517	550	15	3	1	7/1	½	25
Michael Reese Hospital[a1]	Chicago	I. Wolin	AC	903	3,095	4	1	3	7/1	2	25
Northwestern University Medical Center											
Passavant Memorial Hospital[a1]											
Wesley Memorial Hospital[a]	Chicago	E. L. Compere	AFS	1,576	.....	7	5	3	7/1	2	25
Research & Educational Hospitals[a1]	Chicago	F. A. Chandler	ACFS	729	10,293	4	3	6	7/1	3	55
St. Elizabeth Hospital[a]	Chicago	J. J. Callahan	F	401	.....	1	..	1	....	½	60
St. Luke's Hospital[a1]	Chicago	C. N. Lambert	A	480	.....	2	1	2	7/1	1	25
Shriners Hospital for Crippled Children	Chicago	H. A. Sofield	C	250	2,124	1	1	3	1/1, 7/1	1	...
University of Chicago Clinics	Chicago	C. H. Hatcher	ACFS	574	5,048	4	4	4	7/1	3	25
Evanston Hospital[a]	Evanston, Ill.	V. C. Turner	AF	679	1,244	8	2	1	7/1	1½	50
St. Francis Hospital[a]	Evanston, Ill.	J. J. Fahey	AF	684	1,865	29	7	2	1/1, 7/1	1½	75
West Suburban Hospital[a]	Oak Park, Ill.	H. A. Sofield	AF	282	989	13	4	1	1/1, 7/1	1½	150
St. Francis Hospital[a1]	Peoria, Ill.	H. E. Cooper	ACF	666	3,711	..	..	1	7/1	2½	100
Indianapolis General Hospital[a]	Indianapolis	C. Thompson	AFS	747	7,478	38	6	4	7/1	2	80
Indiana University Medical Center[a1]	Indianapolis	G. J. Garceau	ACFS	1,039	10,103	9	6	6	7/1	3	68.33
Methodist Hospital[a1]	Indianapolis	C. F. Thompson	AF	1,401	.....	32	10	2	....	1½	200
St. Vincent's Hospital[a]	Indianapolis	G. J. Garceau	AFS	1,045	3,724	19	3	2	7/1	2	200
Iowa Methodist Hospital[a1]	Des Moines, Iowa	E. M. George	AF	566	.....	3	1	..	7/1	1½	75
Mercy Hospital	Iowa City	A. Steindler	A	375	1,419	2	1	2	1/1, 7/1	1	75
University Hospitals[a1]	Iowa City	R. W. Newman	ACF	2,707	4,976	10	6	13	....	2½	...
University of Kansas Medical Center[a]	Kansas City, Kan.	J. B. Weaver	ACFS	617	2,395	10	1	2	7/1	3	100
Kosair Crippled Children Hospital	Louisville, Ky.	H. Goldberg	C	1,301	778	..	..	4	1/1	1	100
Louisville General Hospital[a1]	Louisville, Ky.	K. A. Fischer	AFS	563	7,009	26	4	2	7/1	2	75
Charity Hospital of Louisiana[a1]	New Orleans	....		.....	45,818	..	..	15	7/1	..	25
Independent Service	New Orleans	....	ACFS	.....	.....	..	..	..	....	3	...
Louisiana State University											
Tulane University Units	New Orleans	....	ACFS	.....	.....	..	..	..	....	3	...
Ochsner Foundation Hospital[1]	New Orleans	G. A. Caldwell	AFS	279	5,698	..	..	4	1/1, 7/1	2	125
Touro Infirmary[a1]	New Orleans	G. A. Caldwell	AC	539	1,131	6	3	2	7/1	2	17.50
Shreveport Charity Hospital[a]	Shreveport, La.	T. M. Oxford	ACFS	755	4,584	14	5	3	7/1	3	60
Shriners Hospital for Crippled Children	Shreveport, La.	G. D. Caldwell	C	138	901	..	..	1	7/1	1	100
Children's Hospital	Baltimore	R. W. Johnson	C	580	543	1	..	4	7/1	1	...
James Lawrence Kernan Hospital and Industrial School for Crippled Children	Baltimore	A. F. Voshell	C	312	5,283	1	..	2	7/1	1	100
Johns Hopkins Hospital[a1]	Baltimore	R. W. Johnson, Jr.	AFS	316	9,751	5	2	3	7/1	2	41.66
Boston City Hospital[a1]	Boston	J. H. Shortell	AF	1,193	32,446	16	..	6	1/1, 7/1	1½	110
Children's Hospital[a1]	Boston	W. Green	CS	743	12,485	..	1	9	....	1½	...
Lahey Clinic	Boston	....	AS	.....	.....	..	..	..	....	1½	...
Massachusetts General Hospital[a28]	Boston	....	ACFS	.....	.....	..	..	..	....	3	...
Peter Bent Brigham Hospital[a1]	Boston	W. T. Green	AF	.....	.....	..	..	1	7/1	1½	41.66
Massachusetts Hospital School[18]	Canton, Mass.	P. L. Norton	CF	114	.....	..	..	2	1/1	1½	430
Shriners Hospital for Crippled Children	Springfield, Mass.	C. De V. Hough	C	329	3,192	..	..	1	1/1	1	25
Worcester City Hospital[a1]	Worcester, Mass.	J. W. O'Meara	ACFS	654	1,144	27	4	2	1/1	3	160
University Hospital[a1]	Ann Arbor, Mich.	C. E. Badgley	ACFS	1,157	10,441	6	2	6	7/1	3	139.60
Children's Hospital[1]	Detroit	F. J. Fischer	C	281	2,744	..	..	1	7/1	1	50
City of Detroit Receiving Hospital[a1]	Detroit	A. D. La Ferte	F	763	8,478	28	26	2	7/1	½	189.08
Harper Hospital[a1]	Detroit	A. G. Goetz	ACFS	729	945	1	..	1	7/1	3	110
Henry Ford Hospital[a1]	Detroit	C. L. Mitchell	ACFS	1,198	15,605	6	1	6	7/1	3	200
Blodgett Memorial Hospital[a]	Grand Rapids, Mich.	J. T. Hodgen	ACF	270	.....	..	..	1	1/1	2½	200
Borgess Hospital	Kalamazoo, Mich.	H. Stryker	AF	430	.....	1	..	1	1/1, 7/1	1½	200
Shriners Hospital for Crippled Children	Minneapolis	W. H. Cole	C	150	464	..	..	1	7/1	1	...
University of Minnesota Hospitals[a1]	Minneapolis	W. Cole	A	202	2,142	5	2	1	7/1	1	125
Mayo Foundation	Rochester, Minn.	R. K. Ghormley	ACFS	.....	.....	..	..	15	....	3	92.50
Gillette State Hospital for Crippled Children[1]	St. Paul	C. C. Chatterton	C	701	3,710	5	5	4	1/1, 7/1	1	...
Mississippi Baptist Hospital[a]	Jackson, Miss.	T. L. Blake	C	1,033	4,000	12	2	1	7/1	1	275
University Hospitals	Columbia, Mo.	W. J. Stewart	C	219	1,175	3	..	..	1/1, 7/1	1	90
Children's Mercy Hospital	Kansas City, Mo.	N. S. Pickard	C	247	2,888	..	..	2	1/1, 7/1	1	85
Kansas City General Hospital No. 1[a]	Kansas City, Mo.	R. Diveley	AF	973	5,077	54	24	3	1/1, 7/1	1½	50
St. Luke's Hospital[a]	Kansas City, Mo.	F. Dickson	ACF	481	9,180	4	4	3	7/1	2½	75
Barnes Hospital[a]	St. Louis	J. A. Key	ACFS	887	3,682	2	2	1	7/1	3	25
St. Louis City Hospital[a1]	St. Louis	E. Holscher and R. O'Brien	F	865	929	70	3	2	7/1	½	...
St. Mary's Group of Hospitals[a1]	St. Louis	R. M. O'Brien	ACFS	531	3,761	4	4	5	7/1	3	35
Shriners Hospital for Crippled Children	St. Louis	C. H. Crego, Jr.	C	384	1,799	..	..	2	7/1	1	...
Nebraska Orthopedic Hospital[1]	Lincoln, Neb.	H. W. Orr	C	854	2,333	14	8	2	2/1	1	150
University of Nebraska Hospital[a1]	Omaha	W. H. Hamsa	ACFS	178	620	5	4	2	7/1	3	75
Jersey City Hospital[a1]	Jersey City, N. J.	H. C. Benjamin	ACF	720	11,203	38	5	5	....	2½	35
Monmouth Memorial Hospital[a1,34]	Long Branch, N. J.	N. S. Ransohoff	ACF	1,051	2,135	15	11	3	7/1	2½	100

Numerical and other references will be found on page 1215.

15. ORTHOPEDIC SURGERY—Continued

Name of Hospital	Location	Chief of Service	Type of Training[14]	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Hospital for Crippled Children	Newark, N. J.	H. H. Kessler and T. Nicola	AC	894	5,890	2	..	2	8/1	2	75
New Jersey Orthopaedic Hospital	Orange, N. J.	H. W. Smith	AC	791	14,020	..	..	2	7/1	2	90
Orange Memorial Hospital	Orange, N. J.	....	F	.....	.....	..	..	..	....	½	...
Orthopaedic Hospital and Dispensary	Trenton, N. J.	R. B. Ernest	A	346	4,494	6	..	1	7/1	1	150
Carrie Tingley Hospital for Crippled Children	Hot Springs, N. Mex.	W. L. Minear	C	358	2,095	3	3	2	1/1, 7/1	1	75
Albany Hospital*[1]	Albany, N. Y.	J. W. Ghormley	ASF	436	752	12	4	2	7/1	2	41.66
Binghamton City Hospital*[1]	Binghamton, N. Y.	A. Carpenter	AC	380	.....	..	..	1	7/1	2	100
House of St. Giles The Cripple	Brooklyn	M. Cleveland	C	188	9,253	..	..	2	7/1	1	50
Jewish Hospital*[1]	Brooklyn	J. Milgrim and M. T. Koven	AFS	1,197	7,364	9	2	1	7/1	2	30
Kings County Hospital*[1]	Brooklyn	C. C. Vitale	ACFS	431	7,844	3	1	3	7/1	3	80
Long Island College Hospital*[1]	Brooklyn	H. C. Fett	AFS	484	5,514	6	4	2	7/1	2	80
Methodist Hospital*[1]	Brooklyn	H. P. Lange, Sr.	AF	1,330	1,870	2	..	1	7/1	1½	25
St. Charles Hospital Orthopedic Clinic	Brooklyn	H. C. Fett	C	241	2,736	3	1	3	7/1	1	100
Buffalo General Hospital*	Buffalo	F. N. Potts	AFS	772	661	10	2	6	7/1	2	25
Children's Hospital[1]	Buffalo	F. N. Potts	C	280	.....	1	..	3	7/1	1	25
Edward J. Meyer Memorial Hospital*[1]	Buffalo	P. Blanco	AFS	182	1,508	2	1	1	7/1	2	100
Millard Fillmore Hospital*	Buffalo	G. H. Marcy	A	594	416	6	2	1	7/1	1	50
Meadowbrook Hospital*	Hempstead, N. Y.	O. C. Hudson	F	638	792	33	17	2	7/1	½	134
Queens General Hospital*[1]	Jamaica, N. Y.	F. C. Courten	AFS	275	17,926	12	6	3	7/1	2	...
Nassau Hospital*[1]	Mineola, N. Y.	O. C. Hudson	AF	1,482	.....	7	..	1	7/1	1½	110
Bellevue Hospital Div. IV—Open Division	New York City	....	AC	.....	.....	..	..	..	....	2	...
Flower and Fifth Avenue Hospitals*[1]	New York City	M. J. Wilson	AF	336	1,684	3	1	...	7/1	1½	...
Hospital for Joint Diseases*[1,35]	New York City	Dr. Buchman and Dr. Kleinfeld	ACFS	2,957	35,670	12	3	19	1/1, 7/1	3	40
Hospital for Special Surgery	New York City	P. D. Wilson	ACFS	1,445	20,744	8	5	8	1/1, 7/1	3	50
Lenox Hill Hospital*[1]	New York City	A. Wiesenthal	AF	408	2,113	12	1	2	Varies	1½	50
Metropolitan Hospital*[1]	New York City	M. J. Wilson	AFS	657	2,719	28	..	3	7/1	2	...
Mount Sinai Hospital*	New York City	R. K. Lippmann	AFS	514	8,483	2	..	3	7/1	2	50
New York Hospital*[1]	New York City	F. L. Liebolt	ACS	180	7,563	..	..	..	....	2½	...
Presbyterian Hospital*[1,26]	New York City	A. DeF. Smith	ACFS	1,897	69,708	7	..	22	7/1	3	41.66
St. Luke's Hospital*[25]	New York City	M. Cleveland	ACFS	712	6,579	7	2	2	7/1	3	50
St. Charles Hospital for Crippled Children	Port Jefferson, N. Y.	F. S. Child	C	387	4,938	2	1	2	1/1, 7/1	1	100
Rochester General Hospital*[1]	Rochester, N. Y.	H. B. Crawford	A	660	1,528	8	5	1	7/1	1	55
Strong Memorial-Rochester Municipal Hospitals*[1,35]	Rochester, N. Y.	R. P. Schwartz	ACFS	857	5,147	..	..	8	7/1	3	41.66
Ellis Hospital & Eastern New York Orthopedic Hospital-School	Schenectady, N. Y.	....	AC	.....	.....	..	..	..	....	2	...
Rehabilitation Hospital[1]	W. Haverstraw, N. Y.	J. C. McCauley, Jr.	AC	322	1,660	1	..	4	....	2	200
Charlotte Memorial Hospital	Charlotte, N. C.	J. E. Jacobs	A	1,244	1,469	11	5	4	....	1	...
Duke Hospital*[1,19]	Durham, N. C.	L. D. Baker	ACFS	690	4,516	..	..	20	7/1	3	83.33
North Carolina Baptist Hospital*[1]	Winston-Salem, N. C.	R. A. Moore	AFS	398	5,202	6	2	1	8/1	2	41.66
Children's Hospital[1]	Akron, Ohio	P. C. Doran	C	468	2,575	..	..	2	7/1	1	100
City Hospital*	Akron, Ohio	....	AF	1,188	620	17	5	5	7/1	1½	100
Children's Hospital	Cincinnati	J. Freiberg	C	.....	.....	..	..	1	....	1	...
Cincinnati General Hospital*[1]	Cincinnati	J. Freiberg	AFS	240	4,405	2	..	5	7/1	2	...
Jewish Hospital*	Cincinnati	J. A. Freiberg	A	508	93	1	1	1	1/1, 7/1	1	75
Cleveland Clinic Hospital[1]	Cleveland	J. A. Dickson	ACFS	307	12,378	4	1	7	7/1	3	135
Mount Sinai Hospital*[1]	Cleveland	R. S. Reich	AF	1,168	2,057	5	..	1	7/1	1½	100
St. Luke's Hospital*	Cleveland	T. A. Willis	AFS	1,026	2,380	18	4	2	6/25	2	60
University Hospitals*[1]	Cleveland	M. Harbin	ACFS	562	2,980	5	..	2	7/1	3	25
Children's Hospital	Columbus, Ohio	E. H. Wilson	C	467	3,994	..	...	2	Varies	1	100
Mount Carmel Hospital*[1]	Columbus, Ohio	E. H. Wilson	AFCS	1,251	1,254	9	2	1	1/1	3	135
White Cross Hospital*	Columbus, Ohio	J. D. Wilson	A	954	200	12	3	3	7/1	1	100
Elyria Memorial Hospital	Elyria, Ohio	....	C	.....	.....	..	..	..	....	1	...
St. Vincent's Hospital*[1]	Toledo, Ohio	A. L. Bershon	ACFS	802	186	24	12	2	7/1	3	...
Youngstown Hospital*[1]	Youngstown, Ohio	R. R. Morrall	AFS	1,021	1,238	20	9	2	7/1	2	75
Bone and Joint Hospital McBride Clinic	Oklahoma City	E. D. McBride	A	2,930	37,080	15	..	5	1/1	1	150
St. Anthony Hospital*	Oklahoma City	W. K. West	A	1,092	648	11	4	1	1/1	1	75
University Hospitals*	Oklahoma City	D. H. O'Donoghue	ACFS	787	7,380	10	3	4	7/1	3	35
Emanuel Hospital*[1]	Portland, Ore.	L. Noall	AF	1,715	.....	21	6	3	7/1	1½	75
Shriners Hospital for Crippled Children[1]	Portland, Ore.	L. S. Lucas	C	392	2,714	1	..	2	7/1	1	75
University of Oregon Medical School Hospitals and Clinics*[1]	Portland, Ore.	L. S. Lucas	AFS	505	5,196	29	24	7	7/1	2	75
State Hospital for Crippled Children	Elizabethtown, Pa.	T. Outland	C	249	2,276	1	..	2	6/1, 10/1	1	192.50
Hamot Hospital*[1]	Erie, Pa.	C. W. Fortune	AF	1,197	226	19	6	2	1/1	1½	150
Children's Hospital of Philadelphia[1]	Philadelphia	J. T. Nicholson	C	171	2,042	..	..	2	....	1	...
Graduate Hospital of the University of Pennsylvania*	Philadelphia	J. Nicholson	AS	126	1,421	1	1	..	7/1	1½	...
Hahnemann Hospital*[1]	Philadelphia	E. O. Geckeler	AFS	744	5,986	8	1	4	9/1	2	50
Hospital of the University of Pennsylvania*[1]	Philadelphia	P. C. Colonna	ACFS	622	5,383	7	5	7	Varies	3	...
Jefferson Medical College Hospital*	Philadelphia	J. R. Martin	AFS	554	4,933	8	1	3	....	2	...
Philadelphia General Hospital*[1]	Philadelphia	J. R. Moore	ACFS	747	10,818	88	..	5	7/1	3	75
Shriners Hospital for Crippled Children[1]	Philadelphia	J. R. Moore	C	219	2,498	1	..	3	7/1	1	50
Temple University Hospital*[1]	Philadelphia	J. R. Moore	AFS	1,064	3,481	20	5	6	7/1	2	50
Allegheny General Hospital*	Pittsburgh	P. B. Steele	ACFS	980	1,854	11	4	3	7/15	3	100
Pittsburgh Medical Center[1,69]	Pittsburgh	W. O. Markell, J. S. Donaldson	ACFS	600	5,264	1	1	1	7/1	3	41.67
St. Francis Hospital*	Pittsburgh	C. C. Yount	A	.....	287	2	..	1	7/1	1	100
Reading Hospital*[1]	Reading, Pa.	E. J. Morrissey	AF	673	1,028	16	11	1	7/1	1½	100
Robert Packer Hospital*	Sayre, Pa.	G. Hammond	ACFS	798	5,505	7	4	3	7/1	3	150
Rhode Island Hospital*[1]	Providence, R. I.	H. McCusker	ACFS	1,472	13,537	27	6	3	7/1	3	50
Roper Hospital*[1]	Charleston, S. C.	F. A. Hoshall	ACFS	770	3,400	8	1	3	7/1	3	50
Columbia Hospital*[1]	Columbia, S. C.	W. A. Boyd	AC	1,300	6,212	17	1	2	7/1	2	75
Greenville General Hospital*	Greenville, S. C.	J. W. White	AF	621	1,334	6	2	1	7/1	1½	100
Shriners Hospital for Crippled Children[1]	Greenville, S. C.	F. H. Stelling	C	318	2,168	..	..	3	7/1	1	100
Baroness Erlanger Hospital*[1]	Chattanooga, Tenn.	R. C. Robertson	AF	963	1,243	9	1	2	7/1	1½	150
Willis C. Campbell Clinic Hospital	Memphis, Tenn.	J. S. Speed	ACFS	1,974	18,525	17	..	12	1/1, 7/1	3	80
Baylor University Hospital*[1]	Dallas, Texas	F. L. Butte	A	1,282	546	13	5	2	7/1	1	50
Parkland Hospital*[1]	Dallas, Texas	P. M. Girard	F	500	3,310	12	4	2	7/1	½	50
Texas Scottish Rite Hospital for Crippled Children	Dallas, Texas	B. Carrell	C	605	5,311	..	..	3	7/1	1	75
Harris Hospital*[1]	Fort Worth, Texas	C. F. Clayton	AF	655	21	5	2	1	7/1	1½	100
University of Texas Medical Branch Hospitals John Sealy*	Galveston, Texas	G. W. N. Eggers	AFS	472	5,437	6	..	3	7/1	2	75
Hermann Hospital	Houston, Texas	E. T. Smith	AFC	612	936	3	..	1	....	2½	50
Jefferson Davis Hospital*[1]	Houston, Texas	M. E. De Bakey	F	691	3,985	21	6	1	7/1	½	50
St. Joseph's Infirmary*	Houston, Texas	J. B. Foster	AF	470	122	1	..	1	1/1	1½	150

Numerical and other references will be found on page 1215.

15. ORTHOPEDIC SURGERY—Continued

Name of Hospital	Location	Chief of Service	Type of Training [14]	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res., and Residencies Offered [6]	Beginning of Service (1956)	Length of Approved Program (Years)	Beginning Stipend (Month)
Scott and White Hospital[3]	Temple, Texas	H. B. Macey	AF	484	.....	1	..	1	.....	3½	$0
St. Mark's Hospital[3,13]	Salt Lake City	P. A. Pemberton	C	927	677	1	..	1	7/1	1	100
Salt Lake County General Hospital[3]	Salt Lake City	P. B. Price	PR	201	1,512	15	4	1	7/1	1	0
University of Virginia Hospital[3]	Charlottesville, Va.	C. Frankel	ACFS	627	4,088	4	2	3	.....	3	41.67
Crippled Children's Hospital[3]	Richmond, Va.	W. T. Graham	C	311	.....	1	1	2	7/1	1	...
Medical College of Virginia Hospital Division[3]	Richmond, Va.	H. F. Mauck	AFS	1,009	2,787	10	4	6	.....	2	...
Children's Orthopedic Hospital	Seattle	J. F. LeCocq	C	342	6,187	1	1	3	7/1	1	0
King County Hospital, Unit No. 1—(Harborview)[3]	Seattle	R. Anderson and I. O. McLemore	AF	962	4,846	42	10	1	7/1	1½	0
Providence Hospital[3]	Seattle	I. O. McLemore	A	623	.....	3	1	1	1/1, 7/1	1	100
Swedish Hospital[3]	Seattle	J. LeCocq	AF	1,263	.....	1	..	1	.....	1½	100
Shriners Hospital for Crippled Children	Spokane, Wash.	S. R. Brown	C	142	558	..	..	1	7/1	1	...
Charleston General Hospital[3]	Charleston, W. Va.	G. Miyakawa	AF	837	6,252	6	1	2	7/1	1½	100
St. Mary's Hospital[3]	Huntington, W. Va.	F. Scott	AF	1,262	667	6	3	1	7/1	½	100
Morris Memorial Hospital	Milton, W. Va.	F. A. Scott	C	502	40	9	..	2	Varies	1	120
State of Wisconsin General Hospital[3]	Madison, Wis.	R. E. Burns	ACFS	1,491	5,822	24	18	4	1/1, 7/1	3	75
Columbia Hospital[3]	Milwaukee	H. C. Schumm	AFS	606	.....	1	1	4	7/1	2	75
Milwaukee Children's Hospital	Milwaukee		C	.....	.....	..	..	..	.....	1	...
Shriners Hospital for Crippled Children	Honolulu, Hawaii	J. W. White	C	148	1,979	..	..	1	1/1	1	...

16. OTOLARYNGOLOGY

The following services are approved by the Council and the American Board of Otolaryngology. Residencies in this specialty have been approved without specifying the number of years for which they have been accredited. The Board will give appropriate credit for training in these hospitals on an individual basis.

Hospitals, 152 Assistant Residencies and Residencies, 422

Name of Hospital	Location	Chief of Service	Inpatient Visits	Outpatient Visits	Asst., Res., and Residencies Offered [6]	Beginning of Service (1956)	Beginning Stipend (Month)
United States Army							
Letterman General Hospital[3]	San Francisco	W. A. Weller	621	7,583	3	1/1, 7/1	0
Fitzsimmons General Hospital[3]	Denver	A. J. Vadala	634	12,411	2	1/1, 7/1	0
Army Medical Center[3,7]	Washington, D. C.	V. J. Erbenbeck	767	22,634	0	7/1	0
Brooke Army Medical Center[3,7]	San Antonio, Texas	H. B. Murphey	881	16,768	6	7/1	0
United States Navy							
U. S. Naval Hospital[3]	Long Beach, Calif.		1,089	5,180	..	.....	...
U. S. Naval Hospital[3]	Oakland, Calif.	P. Northington	972	1,658	2	.....	0
U. S. Naval Hospital[3]	San Diego, Calif.	L. K. Wible	1,316	9,197	1	.....	0
U. S. Naval Hospital[3]	Bethesda, Md.	A. J. Delaney	4,000	3,000	5	Varies	0
U. S. Naval Hospital[3]	Philadelphia	F. Harbert	1,006	19,100	5	1/1, 7/1	0
Veterans Administration							
Veterans Admin. Center[3]	Los Angeles	G. S. Mumma	757	2,113	3	7/1	0
Veterans Admin. Hospital	San Francisco	W. W. Work	451	3,661	3	7/1	0
Veterans Admin. Hospital[3]	Van Nuys, Calif.	S. Kaplan	904	2,100	2	1/1, 7/1	0
Veterans Admin. Hospital [3]	Fort Logan, Colo.	C. W. Whistler	65	.....	..	.....	0
†Veterans Admin. Hospital	Chamblee, Ga.	L. Brown	225	941	2	7/1	0
Veterans Admin. Hospital	Hines, Ill.	P. L. Lederer	1,567	.....	7	1/1, 7/1	0
Veterans Admin. Center [3]	Wadsworth, Kan.	H. A. Knauff	666	.....	1	1/1, 7/1	0
†Veterans Admin. Hospital [3]	Louisville, Ky.	G. Unde	1,502	4,000	3	.....	0
†Veterans Admin. Hospital [3]	New Orleans	F. G. Walls	760	1,036	2	7/1	0
Veterans Admin. Hospital (West Roxbury)	Boston	J. Trakas	412	2,000	..	7/1	0
Veterans Admin. Hospital [3]	Framingham, Mass.	E. H. Tomb	541	1,240	1	7/1	0
Veterans Admin. Hospital [3,8]	Minneapolis	H. Hanson	2,436	923	6	Varies	0
Veterans Admin. Hospital [3]	Jefferson Bks., Mo.	E. Lyman	431	.....	3	7/1	0
Veterans Admin. Hospital [3]	New York City	D. H. Jones	955	4,715	6	1/1, 7/1	0
Veterans Admin. Hospital [3]	Cleveland	R. W. Merkamer	826	910	2	7/1	0
Veterans Admin. Hospital	Portland, Ore.	G. L. Bopden	326	852	1	1/1, 7/1	0
Veterans Admin. Hospital	Aspinwall, Pa.	K. H. Hindever	302	.....	4	7/1	0
†Veterans Admin. Hospital	Memphis, Tenn.	S. D. Madden	972	1,200	3	7/1	0
†Veterans Admin. Hospital [3]	Dallas, Texas	R. S. Tindall	256	.....	2	1/1	0
Veterans Admin. Center	Milwaukee	F. Raine	333	1,400	4	7/1	0
Hosfederal							
Jefferson-Hillman Hospital[3]	Birmingham, Ala.	G. Fisher	1,122	7,333	4	7/1	50
†Arkansas Baptist Hospital[3]	Little Rock, Ark.	K. W. Cosgrove	1,132	.....	1	.....	100
Children's Hospital[3]	Los Angeles	A. H. Miller	1,010	2,800	1	1/1, 7/1	147.21
Los Angeles County Hospital[3]	Los Angeles	L. Brown	1,962	30,416	6	Varies	162
White Memorial Hospital[3]	Los Angeles	R. N. Colver	1,077	9,807	3	7/1	120
San Diego County General Hospital[3]	San Diego, Calif.	J. W. Hedrickson	267	3,648	1	7/1	150
Children's Hospital[3]	San Francisco	R. Martin	1,710	1,342	1	7/1	50
San Francisco Hospital[3]	San Francisco		.....	.....	1	7/1	175
Stanford University Hospital	San Francisco	R. C. McNaught	746	8,776	3	7/1	80
University of California Hospital[3]	San Francisco	L. F. Morrison	550	8,250	2	7/1	75
University of Colorado Medical Center Colorado General Hospital[3]	Denver	H. L. Hirley	284	4,619	2	7/1	75
Denver General Hospital[3]	Denver	H. L. Hirley	309	136	1	7/1	75
Grace-New Haven Community Hospital New Haven Unit (University Service)[3]	New Haven, Conn.	N. Canfield	827	4,378	2	7/1	0
Episcopal Eye, Ear and Throat Hospital[3]	Washington, D. C.	D. R. Moffett	4,556	40,042	4	1/1	...
Gallinger Municipal Hospital[3]	Washington, D. C.	S. Burtoff	1,924	5,886	2	7/1	100
Grady Memorial Hospital[3]	Atlanta, Ga.	W. C. Warren	564	9,100	1	7/1	0
Cook County Hospital[3]	Chicago	R. A. Kerwin	2,350	28,615	5	1/1, 7/1	82
Illinois Eye and Ear Infirmary[3]	Chicago	F. L. Lederer	1,008	35,254	10	7/1	...
Mercy Hospital-Loyola University Clinics[3]	Chicago	R. W. Kerwin	256	1,277	1	7/1	0
Michael Reese Hospital[3]	Chicago	N. Leahin	1,057	2,598	1	7/1	83
Presbyterian Hospital[3]	Chicago	S. A. Friedberg	901	3,778	2	.....	83
Research and Educational Hospitals[3]	Chicago	F. E. Lederer	746	12,383	3	7/1	83
St. Luke's Hospital[3]	Chicago	W. Theobald	1,040	.....	1	7/1	83
University of Chicago Clinics[3]	Chicago	J. R. Lindsay	508	9,162	4	7/1	83

Numerical and other references will be found on page 1215.

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16. OTOLARYNGOLOGY—Continued

Name of Hospital	Location	Chief of Service	Inpatient Visits	Outpatient Visits	Asst., Res. and Residencies Offered*	Beginning of Service (1950)	Beginning Stipend (Month)
Wesley Memorial Hospital[a1]	Chicago	G. Shambaugh	1,267	.....	1	7/1	25
Indianapolis General Hospital[a1]	Indianapolis	R. N. Dearmin	904	6,478	2	7/1	90
Indiana University Medical Center[a1]	Indianapolis	C. H. McCaskey	522	2,134	3	7/1	66.33
University Hospitals[a1]	Iowa City	D. M. Lierle	2,207	6,071	12	.....	...
University of Kansas Medical Center[a]	Kansas City, Kan.	S. Roberts	739	3,791	2	7/1	100
Louisville General Hospital[a1]	Louisville, Ky.	J. S. Baumgardner	573	5,084	2	7/1	50
Charity Hospital of Louisiana[a1]	New Orleans	J. H. Hanley	1,266	22,141	..	7/1	25
Eye, Ear, Nose and Throat Hospital[a]	New Orleans	F. E. LeJeune	3,223	21,561	7	7/1	...
Touro Infirmary[a1]	New Orleans	H. L. Kearney	1,162	2,549	1	7/1	...
Baltimore Eye, Ear and Throat Charity Hospital[a]	Baltimore	M. L. Breitstein	2,806	7,532	3	7/1	10
Johns Hopkins Hospital[a]	Baltimore	N. J. Crowe	1,220	12,360	4	7/1	41.66
†South Baltimore General Hospital[a1]	Baltimore	S. L. Fox	450	1,356	2	7/1	90
University Hospitals[a1]	Baltimore	E. A. Looper	715	5,524	1	7/1	75
Beth Israel Hospitals[a]	Boston	G. B. Fred	783	4,661	1	7/1	41.66
Boston City Hospitals[a1]	Boston	E. J. Moynahan	2,912	16,346	6	3/1, 7/1	90
Lahey Clinic	Boston	W. B. Hoover	757	10,712	2	7/1	125
†Massachusetts Eye and Ear Infirmary	Boston	L. A. Schall	3,343	28,853	9	.....	40
Massachusetts Memorial Hospitals[a1]	Boston	L. F. Johnson	391	994	1	7/1	50
University Hospitals[a1]	Ann Arbor, Mich.	A. C. Furstenberg	861	8,930	8	7/1	120.60
Grace Hospital[a]	Detroit	.....	1,615	1,556	1	7/1	75
Harper Hospitals[a]	Detroit	R. H. Pine	3,036	2,429	3	7/1	110
Henry Ford Hospital[a]	Detroit	J. L. Dill	1,175	20,318	4	7/1	200
Wayne County General Hospital and Infirmary[a]	Eloise, Mich.	F. T. May	.....	.....	..	.....	...
University of Minnesota Hospitals[a1, 2]	Minneapolis	L. R. Boies	265	2,019	9	7/1	125
Mayo Foundation	Rochester, Minn.	H. I. Lillie	.....	.....	12	Varies	92.50
Kansas City General Hospital No. 1[a]	Kansas City, Mo.	N. E. Lacy	467	3,957	1	7/1	50
Barnes Hospitals[a]	St. Louis	T. E. Walsh	3,160	14,334	10	7/1	10
Homer G. Phillips Hospitals[a]	St. Louis	W. Dean	209	3,327	1	.....	90
Jewish Hospitals[a]	St. Louis	M. Fineberg	372	575	1	7/1	100
St. Louis City Hospitals[a1]	St. Louis	R. E. Votaw and W. D. Harkins	459	4,792	1	7/1	...
St. Mary's Group of Hospitals[a1]	St. Louis	R. J. McMahon	204	5,361	3	7/1	25
Jersey City Hospitals[a]	Jersey City, N. J.	M. O. Borrone	1,280	8,196	5	Varies	35
Newark City Hospitals[a]	Newark, N. J.	H. Orton	.....	.....	1	.....	60
Newark Eye and Ear Infirmary	Newark, N. J.	.....	1,660	5,175	2	1/1, 7/1	...
Albany Hospitals[a]	Albany, N. Y.	R. M. Volk	767	1,410	2	7/1	41.66
Brooklyn Eye and Ear Hospital[a]	Brooklyn	J. P. Baker	6,015	40,504	6	1/1, 7/1	...
Jewish Hospitals[a]	Brooklyn	K. Kapian	382	2,773	1	7/1	50
Kings County Hospitals[a]	Brooklyn	H. Christensen	1,974	8,264	2	7/1	80
Long Island College Hospital[a]	Brooklyn	C. R. Weeth	700	2,819	2	7/1	80
Buffalo General Hospital[a]	Buffalo	H. Neer	899	2,346	3	7/1	85
Edward J. Meyer Memorial Hospitals[a]	Buffalo	M. L. Gerstner	102	2,220	2	7/1	100
Queens General Hospital[a]	Jamaica, N. Y.	M. S. Bender	594	4,229	2	7/1	...
New Rochelle Hospital[a]	New Rochelle, N. Y.	H. N. Stevenson	.....	.....	1	7/1	125
Bellevue Hospital Div. III—New York University[a1]	New York City	.....	.....	.....	..	.....	...
†Beth Israel Hospital	New York City	M. L. Som	657	3,129	1	7/1	50
Flower and Fifth Avenue Hospitals[a1]	New York City	J. A. W. Hetrick	102	2,254	2	7/1	...
Harlem Eye and Ear Hospital[a]	New York City	E. Grabscheid	1,804	16,252	4	1/1, 7/1	...
Harlem Hospitals[a]	New York City	H. J. Burman	612	7,822	1	7/1	80
Lenox Hill Hospitals[a]	New York City	G. F. Oberrender and W. I. Galland	1,188	3,611	1	Varies	50
Manhattan Eye, Ear and Throat Hospital[a]	New York City	M. F. Jones	9,072	56,070	6	10/1	...
Metropolitan Hospitals[a]	New York City	J. A. W. Hetrick	350	4,572	2	7/1	80
Morrisania City Hospitals[a]	New York City	G. B. Gilmore	617	3,501	2	7/1	80
Mount Sinai Hospitals[a]	New York City	R. Kramer	578	8,057	2	7/1	50
New York City Hospitals[a]	New York City	O. C. Risch	500	4,473	2	7/1	80
New York Eye and Ear Infirmary[a]	New York City	S. Craig	3,165	41,702	10	10/1	...
New York Hospitals[a]	New York City	J. Moore	1,200	14,040	3	7/1	25
New York Polyclinic Medical School and Hospitals[a]	New York City	S. J. Kopetzky	625	7,140	3	7/1	50
Presbyterian Hospitals[a]	New York City	E. P. Fowler, Jr.	1,974	21,803	7	1/1, 7/1	41.66
Roosevelt Hospitals[a]	New York City	H. C. Grove	650	5,372	2	7/1	25
St. Luke's Hospitals[a]	New York City	V. C. McCunn	1,349	9,563	3	1/1, 7/1	50
University Hospitals[a]	New York City	J. P. Daly	858	5,655	3	7/1	80
Rochester General Hospitals[a]	Rochester, N. Y.	E. J. Avery	1,382	1,357	1	7/1	55
Strong Memorial Rochester Municipal Hospitals[a]	Rochester, N. Y.	C. A. Heatly	1,265	3,685	3	7/1	41.66
Sea View Hospital[a]	Staten Island, N. Y.	J. Gilbert	6,139	.....	2	7/1	130
Syracuse University Medical Center Hospitals[a]	Syracuse, N. Y.	G. D. Hoople	1,007	256	1	7/1	...
Grasslands Hospitals[a]	Valhalla, N. Y.	J. R. Emery	366	1,973	1	7/1	125
Duke Hospitals[a]	Durham, N. C.	W. E. Eagle	691	2,711	..	7/1	33.33
North Carolina Baptist Hospitals[a]	Winston-Salem, N. C.	J. A. Harrill	592	2,776	3	7/1	41.66
Cincinnati General Hospital[a]	Cincinnati	H. Goodyear	704	7,221	2	7/1	...
City Hospitals[a]	Cleveland	C. W. Engler	732	5,660	2	7/1	70
Cleveland Clinic Hospital[a]	Cleveland	H. Z. Harris	670	15,224	4	7/1	125
St. Luke's Hospitals[a]	Cleveland	T. W. Thoburn	2,685	1,465	2	6/26	90
University Hospitals[a]	Cleveland	C. C. R. Jackson	2,002	3,942	3	7/1	85
Ohio State University Hospitals[a]	Columbus, Ohio	H. G. Beatty	353	2,576	2	7/1	50
University Hospitals[a]	Oklahoma City	C. McHenry	336	1,824	2	7/1	35
University of Oregon Medical School Hospitals and Clinics[a]	Portland, Ore.	G. L. Boyden	650	5,100	3	7/1	75
George F. Geisinger Memorial Hospital[a]	Danville, Pa.	F. W. Davison	942	8,550	2	7/1	75
Graduate Hospital of the Univ. of Pennsylvania[a]	Philadelphia	F. H. Campbell	1,016	3,202	4	7/1	...
Hospital of the University of Pennsylvania[a]	Philadelphia	H. P. Schenck	1,000	6,191	6	Varies	50
Jefferson Medical College Hospitals[a]	Philadelphia	L. H. Clerf	2,302	15,147	4	.....	...
Pennsylvania Hospital[a]	Philadelphia	E. H. Campbell	619	3,044	1	.....	90
Philadelphia General Hospital[a1]	Philadelphia	S. Eltman	198	4,386	..	7/1	75
Temple University Hospitals[a]	Philadelphia	M. S. Ermer	1,871	803	2	7/1	50
Mercy Hospitals[a]	Pittsburgh	J. A. Perrone	1,873	3,023	4	7/1	100
Pittsburgh Medical Center[a2]	Pittsburgh	T. B. McCollough	4,521	7,397	3	7/1	41.66
Robert Packer Hospitals[a]	Sayre, Pa.	H. D. Rentschler	1,034	5,291	1	7/1	150
Knoxville General Hospitals[a]	Knoxville, Tenn.	H. E. Christenberry	333	843	..	7/1	85
†John Gaston Hospitals[a]	Memphis, Tenn.	C. D. Blassingame	1,018	6,342	2	7/1	...
Nashville General Hospitals[a1]	Nashville, Tenn.	N. B. Morris	570	4,078	1	7/1	33.50

Numerical and other references will be found on page 1215.

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16. OTOLARYNGOLOGY—Continued

Name of Hospital	Location	Chief of Service	Inpatients' Visits	Outpatient Visits	Asst., Res. and Assistantships Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
Parkland Hospital[a]	Dallas, Texas	J. D. Singleton	111	2,224	1	7/1	50
University of Texas Medical Branch Hospitals	Galveston, Texas	J. M. Robinson	443	6,238	3	7/1, 9/1	50
John Sealy Hospital[a]							
Jefferson Davis Hospital[a]	Houston, Texas	C. C. Cody	205	8,110	1	7/1	25
University of Virginia Hospital[a]	Charlottesville, Va.	F. Woodward	1,278	5,704	2	.....	15.50
Medical College of Virginia Hospital Division[a]	Richmond, Va.	P. N. Pastore	749	3,411	3	.....	...
†Gill Memorial Eye, Ear and Throat Hospital	Roanoke, Va.	E. G. Gill	1,672	3,556	3	1/1	100
King County Hospital, Unit No. 1 (Harborview)[a]	Seattle	J. A. Weber	282	1,697	..	7/1	90
State of Wisconsin General Hospital[a]	Madison, Wis.	W. Nesbit	1,281	5,230	1	1/1, 7/1	25
St. Joseph's Hospital[a]	Marshfield, Wis.	L. A. Copps	740	.....	1	.....	...
Milwaukee County Hospital[a]	Milwaukee	J. P. Wild	315	1,905	2	7/1	175

17. PATHOLOGY

The following services are approved by the Council and the American Board of Pathology.

Hospitals, 417 Assistant Residencies and Residencies, 1,001

Name of Hospital	Location	Chief of Service	Inpatients Treated *	Surgical Specimens	Number Examined Microscopically	Autopsies	Asst., Res. and Assistantships Offered *	Beginning of Service (1950)	Length of Program (Years)	Beginning Stipend (Month)	
United States Army											
Letterman General Hospital[a]	San Francisco	K. F. Ernst	12,465	4,307	3,656	185	6	1/1, 7/1	3	n	
Fitzsimmons General Hospital[a]	Denver	H. W. Mabon	12,782	8,395	8,395	196	3	1/1, 7/1	3	n	
Army Institute of Pathology	Washington, D. C.	H. F. Smetana	.....	27,500	27,500	12,000	2	.....	1*	n	
Army Medical Center[13]	Washington, D. C.	V. H. Cornell	11,666	4,616	4,506	214	9	7/1	3	n	
Brooke Army Medical Center[14]	San Antonio, Texas	C. J. Lind, Jr.	10,284	5,856	5,856	344	6	7/1	3	n	
Gorgas Hospital[a]	Ancon, C. Z.	N. W. Elton	11,137	3,276	3,276	196	11	7/1	3	n	
United States Navy											
U. S. Naval Hospital[a]	Long Beach, Calif.	J. L. Zundell	18,345	4,665	4,665	316	2	Varies	3	n	
U. S. Naval Hospital[a]	Oakland, Calif.	J. S. Shaver	12,815	2,212	2,212	226	3	Varies	3	n	
U. S. Naval Hospital[a]	San Diego, Calif.	A. W. Eaton	21,192	4,089	4,089	288	1	.....	3	n	
U. S. Naval Hospital[a]	Bethesda, Md.	W. M. Silliphant	15,180	4,988	4,988	261	16	Varies	3	n	
U. S. Naval Hospital[a]	St. Albans, N. Y.	D. J. Crecovan	8,929	2,104	2,104	173	4	.....	1	n	
U. S. Naval Hospital[a]	Philadelphia	R. H. Walker	14,827	2,874	2,874	208	2	1/1, 7/1	3	n	
United States Public Health Service											
U. S. Marine Hospital[a]	New Orleans	L. L. Swan	4,353	2,803	2,112	70	2	7/1	2*	n	
U. S. Marine Hospital[a]	Baltimore	C. H. Binford	7,248	3,002	3,002	136	3	7/1	3	n	
National Institute of Health	Bethesda, Md.	.....	.....	.....	.....	.....	...	.....	1*	...	
U. S. Marine Hospital[a]	Stapleton, L. I., N. Y.	L. H. Sophian	11,338	1,439	1,439	110	3	7/1	2*	n	
U. S. Marine Hospital[a]	Seattle	T. L. Perrin	6,071	1,801	1,324	125	1	7/1	2*	n	
Veterans Administration											
Veterans Admin. Center[a]	Los Angeles	L. Kaplan	16,954	5,776	5,236	686	7	1/1, 7/1	3	n	
Veterans Admin. Hospital	San Francisco	H. D. Moon	4,380	2,679	2,154	708	2	7/1	2*	n	
Veterans Admin. Hospital[a]	Van Nuys, Calif.	R. R. Kenwather	10,080	2,967	2,967	337	2	1/1, 7/1	3	n	
Veterans Admin. Hospital[1]	Washington, D. C.	J. S. Howe	3,640	1,774	1,676	166	4	7/1	3	n	
Veterans Admin. Hospital[1]	Chamblee, Ga.	L. N. Foster	7,200	2,216	2,216	182	4	7/1	2*	n	
Veterans Admin. Hospital	Hines, Ill.	W. L. McNamara	29,634	5,402	5,402	611	2	1/1, 7/1	3	n	
Veterans Admin. Hospital[1]	Indianapolis	D. Rosenbaum and H. J. Sacks	3,722	1,286	1,286	133	..	1/1, 7/1	2*	n	
Veterans Admin. Center	Des Moines, Iowa	K. R. Cross	6,604	1,805	1,805	148	2	7/1	2*	n	
Veterans Admin. Center[1]	Wadsworth, Kan.	C. J. Weber	8,508	2,484	2,310	203	3	1/1, 7/1	2*	n	
Veterans Admin. Hospital[1]	Louisville, Ky.	H. Gordon	9,117	4,129	4,125	173	2	.....	2*	n	
Veterans Admin. Hospital[1]	New Orleans	J. Ehrlich	6,455	2,005	2,005	136	2	7/1	2	n	
Veterans Admin. Hospital	Fort Howard, Md.	W. B. Van DeBrift	3,067	805	799	145	2	7/1	2*	n	
Veterans Admin. Hospital	Boston	J. D. Houghton	5,252	1,875	1,754	134	2	1/1, 7/1	2*	n	
Veterans Admin. Hospital[1]	Framingham, Mass.	R. Flenberg	6,927	3,000	3,000	131	3	7/1	2*	n	
Veterans Admin. Hospital	Dearborn, Mich.	M. J. Linn	7,268	3,225	3,220	230	2	7/1	2*	n	
Veterans Admin. Hospital	Minneapolis	J. L. Coe and E. T. Bell	11,125	4,482	4,476	291	3	7/1	2*	n	
Veterans Admin. Hospital[1]	Jefferson Bks., Mo.	M. Kannerstein	8,957	2,920	2,422	247	4	7/1	2*	n	
Veterans Admin. Hospital[1]	New York City	H. M. Zimmermann	10,536	4,360	4,360	350	3	7/1	2*	n	
Veterans Admin. Hospital[1]	Staten Island, N. Y.	O. Auerbach	10,043	2,914	2,914	301	3	7/1	2*	n	
Veterans Admin. Hospital	Oteen, N. C.	S. Bornstein	4,374	994	992	133	..	1/1, 7/1	1*	n	
Veterans Admin. Hospital[1]	Cleveland	J. R. Kahn	9,570	4,171	3,842	242	4	7/1	2*	n	
Veterans Admin. Hospital	Dayton, Ohio	C. Raven	5,998	1,684	.....	307	3	7/1	2*	n	
Veterans Admin. Hospital	Aspinwall, Pa.	G. Brimmer	9,125	3,401	3,401	313	3	7/1	2*	n	
Veterans Admin. Hospital	Memphis, Tenn.	D. J. Greiner	12,551	3,866	3,866	175	4	7/1	2*	n	
Veterans Admin. Hospital	Nashville, Tenn.	S. H. Auerbach	7,068	1,893	1,592	95	1	7/1	1*	n	
Veterans Admin. Hospital[1]	Dallas, Texas	J. Furth	3,945	1,368	1,367	107	1	1/1	2*	n	
Veterans Admin. Hospital[1]	McKinney, Texas	O. J. Wolfenman, Jr.	5,472	1,658	1,658	133	2	7/1	2*	n	
Veterans Admin. Hospital[1]	Salt Lake City	E. J. Eichwald	3,147	1,170	1,015	92	1	7/1	1*	n	
Veterans Admin. Hospital[1]	Richmond, Va.	J. R. Kritz	6,831	2,235	2,216	143	4	7/1	2*	n	
Veterans Admin. Center[1]	Milwaukee	J. M. Lubitz	7,693	2,254	1,972	284	4	7/1	2*	n	
Nonfederal											
Baptist Hospital[1]	Birmingham, Ala.	A. F. Casey	6,353	4,089	4,061	70	3	7/1	4*	200	
Jefferson-Hillman Hospital[a]	Birmingham, Ala.	R. Baker	20,324	4,612	4,612	422	4	7/1	4*	50	
Employees' Hospital of the Tennessee Coal, Iron and Railroad Company[a]	Fairfield, Ala.	J. A. Cunningham	10,514	1,688	1,682	121	2	7/1	1*	225	
University Hospitals[1]	Little Rock, Ark.	A. Nettleship	4,670	5,165	5,165	141	3	7/1	3	75	
Kern General Hospital	Bakersfield, Calif.	.....	10,721	2,840	1,846	333	2	7/1	4*	225	
Herrick Memorial Hospital[a]	Berkeley, Calif.	J. S. Fishback	8,035	2,656	1,654	155	1	7/1	2*	50	
Glendale Sanitarium and Hospital[a]	Glendale, Calif.	A. F. Brown	7,228	2,112	1,500	136	1	7/1	2*	160	
Loma Linda Sanitarium and Hospital[a]	Loma Linda, Calif.	C. S. Small	4,862	5,413	5,350	74	6	7/1	2*	120	
California Hospital[a]	Los Angeles	A. Wright	14,762	6,024	4,303	156	1	7/1	2*	200	
Cedars of Lebanon Hospital[a]	Los Angeles	S. Friedman	11,406	5,558	4,690	146	2	7/1	2*	75	
Children's Hospital[a]	Los Angeles	R. E. Knuitti	5,950	476	460	144	3	1/1, 7/1	1*	100	

Numerical and other references will be found on page 1215.

17. PATHOLOGY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated *	Surgical Specimens	Number Examined Microscopically	Autopsies	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Hospital of the Good Samaritan•[1]	Los Angeles	R. W. Hammack	12,173	4,948	3,072	146	1	7/1	1[p]	150
Los Angeles County Hospital•	Los Angeles	E. M. Butt	64,952	11,982	10,632	2,234	4	....	3[p]	165
Queen of Angels Hospital•	Los Angeles	A. R. Camero	18,972	5,222	4,083	233	1	7/1	3[p]	100
St. Vincent's Hospital•	Los Angeles	E. Kahler	9,083	3,782	2,857	92	1	7/1	2[p]	100
White Memorial Hospital•[1]	Los Angeles	O. B. Pratt	9,216	4,837	3,213	146	3	7/1	3	120
Highland Alameda County Hospital•[1]	Oakland, Calif.	R. J. Parsons	11,374	2,820	2,475	350	3	....	3	135
Permanente Foundation Hospital•[1]	Oakland, Calif.	M. Friedman	9,282	5,207	3,478	133	1	....	3	125
Collis P. and Howard Huntington Memorial Hospital•	Pasadena, Calif.	A. G. Foord	10,305	7,500	6,456	248	4	7/1	3	240
Mercy Hospital•	San Diego, Calif.	D. A. DeSanto	13,877	4,854	4,408	111	1	7/1	1	150
San Diego County General Hospital•	San Diego, Calif.	K. Fowler	8,851	2,178	1,829	233	1	7/1	4[p]	125
French Hospital•[1]	San Francisco	G. Watson	6,452	2,802	2,308	79	1	7/1	1	150
Mount Zion Hospital•[1]	San Francisco	G. R. Biskind	5,725	2,155	1,690	124	2	....	3[p]	50
St. Luke's Hospital•	San Francisco	G. A. Walker	7,951	3,304	1,929	109	1	7/1	2[p]	100
San Francisco Hospital•[1]	San Francisco	....	21,658	6,617	6,617	386	6	7/1	..	175
Stanford University Hospital•[1]	San Francisco	A. J. Cox	11,309	2,783	2,783	164	3	7/1	3	50
University of California Hospital•[1]	San Francisco	J. F. Rinehart	8,141	4,035	4,035	159	2	7/1	1	...
Santa Clara County Hospital•	San Jose, Calif.	D. J. Stump	6,349	1,864	1,704	294	3	7/1	3[p]	235
Santa Barbara Cottage Hospital•[1]	Santa Barbara, Calif.	E. L. Benjamin	6,957	3,041	2,184	85	1	7/1	3	100
Glockner-Penrose Hospital•[38]	Colorado Spgs., Colo.	E. F. Geever	4,802	1,913	1,182	55	1	7/1	2[p]	150
Children's Hospital[1]	Denver	H. D. Palmer	7,675	2,154	2,001	107	2	7/1	3[p]	50
Presbyterian Hospital•	Denver	A. E. Lubchenco	7,368	3,321	979	92	1	7/1	1[a]	75
St. Luke's Hospital•	Denver	W. C. Black	11,448	7,383	4,968	149	1	7/1	3[p]	40
University of Colorado Medical Center	....	....								
Colorado General Hospital•	Denver	J. B. McNaught	5,187	2,569	2,564	270	9	7/1	4[p]	95
Denver General Hospital•[1,9]	Denver	A. Lapi	9,035	1,996	1,995	491	4	7/1	4[p]	75
Colorado State Hospital[1]	Pueblo, Colo.	M. Gallavan	1,107	750	717	222	3	7/1	1	275
Bridgeport Hospital•	Bridgeport, Conn.	I. B. Akerson	13,697	2,896	2,896	168	1	1/1	3	100
Hartford Hospital•[1]	Hartford, Conn.	R. E. Kendall	25,871	10,022	8,888	384	3	7/1	3	50
St. Francis Hospital•	Hartford, Conn.	L. P. Hastings	17,928	4,900	4,700	183	3	1/1, 7/1	3[p]	75
New Britain General Hospital•[1]	New Britain, Conn.	P. D. Rosahn	7,592	2,350	1,130	135	2	7/1	3	75
Grace-New Haven Community Hospital New Haven Unit (University Service)•[1]	New Haven, Conn.	M. C. Winternitz	11,570	4,760	4,675	353	2	7/1	3	40
Hospital of St. Raphael•[1]	New Haven, Conn.	R. R. Nesbit	14,619	2,781	2,451	115	2	7/1	2[p]	75
Norwalk Hospital•	Norwalk, Conn.	R. N. Barnett	7,255	2,161	2,161	122	2	7/1	2[p]	155
Stamford Hospital•[1]	Stamford, Conn.	J. G. Snavely	7,278	2,493	2,013	150	1	7/1	3[p]	150
Waterbury Hospital•[1]	Waterbury, Conn.	J. O. Collins	10,729	3,103	2,795	153	1	7/1	2[p]	100
Delaware Hospital•	Wilmington, Del.	J. W. Howard	10,201	4,083	4,751	189	1	7/1	3	110
Memorial Hospital•[1]	Wilmington, Del.	J. W. Hooker	5,873	3,163	3,163	146	2	7/1	2	110
Children's Hospital	Washington, D. C.	E. C. Rice	8,837	409	276	109	2	7/1	1	50
Doctor's Hospital•	Washington, D. C.	O. B. Hunter	9,482	5,231	4,790	137	1	7/1	1	100
Gallinger Municipal Hospital•[1]	Washington, D. C.	M. W. Alden	21,006	3,053	3,053	564	1	7/1	3	100
Garfield Memorial Hospital•[1]	Washington, D. C.	E. C. Rice	9,686	3,848	2,545	176	..	....	3	...
Georgetown University Hospital•[1]	Washington, D. C.	C. Geschickter	10,555	2,881	2,881	176	14	7/1	3	75
George Washington University Hospital•[1]	Washington, D. C.	T. M. Peery	11,244	4,483	4,284	150	2	7/1	3	50
Providence Hospital•	Washington, D. C.	H. H. Leffler	11,219	3,470	3,302	230	1	7/1	3	75
Sibley Memorial Hospital•[1]	Washington, D. C.	O. B. Hunter	11,223	3,845	3,518	213	1	7/1	..	100
St. Vincent's Hospital•	Jacksonville, Fla.	N. A. Murray	12,659	3,558	3,558	120	1	7/1	1	100
Jackson Memorial Hospital•	Miami, Fla.	P. R. Rezek	17,506	6,030	4,107	322	3	7/1	3	60
Crawford W. Long Memorial Hospital•	Atlanta, Ga.	D. Ayer	18,372	5,253	5,220	154	4	7/1	4[p]	75
Grady Memorial Hospital•[1]	Atlanta, Ga.	W. Sheldon	17,670	5,830	5,830	519	3	7/1	3	20
University Hospital•	Augusta, Ga.	E. R. Pund and W. L. Shepeard	15,785	4,050	3,292	127	1	7/1	3	40
Emory University Hospital•	Emory University, Ga.	W. Sheldon	9,901	3,446	3,446	126	2	7/1	3	50
Alexian Brothers Hospital	Chicago	J. P. Simonds	4,986	728	728	91	1	1/1, 7/1	1[p]	125
Augustana Hospital•	Chicago	G. Milles	8,042	3,521	2,493	171	2	4/1	3[p]	50
Children's Memorial Hospital[1]	Chicago	J. P. Simonds	4,594	290	290	108	1	1/1	1	70
City of Chicago Municipal Tuberculosis Sanitarium	Chicago	H. C. Sweany	1,123	700	845	128	..	....	1	...
Cook County Hospital•[1]	Chicago	H. Popper	73,302	9,770	8,301	1,389	5	1/1, 7/1	4[p]	32
Englewood Hospital[38]	Chicago	G. T. Rich	6,073	1,525	1,310	65	1	7/1	1[p]	200
Grant Hospital•[1]	Chicago	C. C. Mason	7,501	4,718	3,211	140	1	7/1	2[p]	100
Illinois Masonic Hospital•[1]	Chicago	L. S. King	7,920	2,091	2,050	195	2	7/1	3[p]	50
Mercy Hospital-Loyola University Clinics•[1]	Chicago	F. D. Stone	9,654	3,040	2,448	138	1	7/1	3	25
Michael Reese Hospital•[1]	Chicago	O. Saphir	17,549	5,628	5,628	421	6	Varies	4[p]	25
Mount Sinai Hospital•	Chicago	I. Davidsohn	10,243	4,092	3,302	192	4	7/1	4[p]	50
Norwegian-American Hospital•[1]	Chicago	A. Learner	7,736	2,061	1,498	93	1	7/1	1[p]	150
Northwestern University Medical Center										
Passavant Memorial Hospital•	Chicago	M. Wheelock	7,450	2,150	2,150	97	..	....	3	...
Wesley Memorial Hospital•[1]	Chicago	T. C. Laipply	15,958	4,611	4,611	222	4	7/1	4[p]	25
Presbyterian Hospital•	Chicago	G. M. Hass	12,925	5,129	5,129	246	5	....	3	50
Provident Hospital•	Chicago	J. E. Bowman	5,917	1,611	1,510	113	1	7/1	1	50
Ravenswood Hospital•[1]	Chicago	H. I. Brown	7,308	2,014	2,014	176	2	7/1	2[p]	60
Research & Educational Hospital•[1]	Chicago	G. A. Bennett	7,283	3,985	3,985	191	3	....	3	55
St. Luke's Hospital•[1]	Chicago	E. F. Hirsch	17,137	7,638	6,000	233	4	1/1, 7/1	3	25
St. Mary of Nazareth Hospital•	Chicago	E. Thurston	9,580	3,161	2,732	158	1	7/1	2[a]	100
University of Chicago Clinics•	Chicago	P. R. Cannon	13,056	4,553	4,423	225	3	7/1	3	25
Evanston Hospital•	Evanston, Ill.	J. C. McCarter	7,757	2,201	2,134	158	2	1/1	3	50
St. Francis Hospital•	Evanston, Ill.	J. W. Henry	11,855	2,477	2,440	209	2	7/1	3	75
Methodist Hospital of Central Illinois•	Peoria, Ill.	D. O. Manshardt	7,898	5,411	3,795	73	1	7/1	2[p]	150
St. Francis Hospital•[1]	Peoria, Ill.	J. E. Kraus	15,015	5,214	2,786	247	1	7/1	3	100
St. Anthony's Hospital•	Rockford, Ill.	A. R. K. Matthews	7,788	3,129	2,964	108	1	1/1	3[p]	150
St. Joseph Hospital[1]	Fort Wayne, Ind.	S. M. Rabson	9,442	2,840	2,330	99	2	1/1, 7/1	2[p]	125
Indianapolis General Hospital•[1]	Indianapolis	A. Michaels	10,708	2,270	2,216	326	2	7/1	3	100
Indiana University Medical Center•[1]	Indianapolis	J. L. Arbogast	11,865	3,467	3,467	300	6	7/1	3	68.33
Methodist Hospital•[1]	Indianapolis	H. M. Banks	22,483	11,712	7,653	196	2	7/1	3	200
St. Elizabeth Hospital•	La Fayette, Ind.	J. M. McFadden	8,608	2,219	2,080	137	1	7/1	1	100
Ball Memorial Hospital•[1]	Muncie, Ind.	L. G. Montgomery	9,022	5,231	4,789	160	1	7/1	4[p]	150
Memorial Hospital•[1,41]	South Bend, Ind.	A. S. Giordano	8,305	7,825	6,800	120	2	7/1	3	150
Broadlawns-Polk County Hospital•[1]	Des Moines, Iowa	F. C. Coleman	4,732	1,424	917	112	..	1/1, 7/1	1[p]	125
Iowa Methodist Hospital•[1]	Des Moines, Iowa	R. F. Birge	11,548	5,424	5,379	185	2	7/1	3	75
Mercy Hospital•[1]	Des Moines, Iowa	F. C. Coleman	10,031	2,122	2,122	126	2	7/1	3[p]	115
University Hospitals•[1]	Iowa City	E. D. Warner	20,565	4,721	4,721	343	7	7/1	3	50
University of Kansas Medical Center•	Kansas City, Kan.	....	8,423	5,774	4,738	231	4	7/1	3	100
St. Francis Hospital•	Wichita, Kan.	W. P. Callahan, Jr.	15,465	8,049	8,049	147	2	7/1	3	125
Louisville General Hospital•[1]	Louisville, Ky.	A. J. Miller	9,492	2,325	2,287	210	4	7/1	3	45
Charity Hospital of Louisiana•[1]	New Orleans	E. Moss	50,685	13,359	13,359	1,001	13	7/1	4[p]	25
Hotel Dieu-Sister's Hospital•[1]	New Orleans	R. M. Hartwell	11,530	5,480	5,430	147	3	7/1	4[p]	75
Southern Baptist Hospital•[1]	New Orleans	E. H. Lawson	13,833	6,768	6,768	127	3	7/1	3[p]	150

Numerical and other references will be found on page 1215.

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17. PATHOLOGY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated*	Surgical Specimens	Number Examined Microscopically	Autopsies	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Touro Infirmary[*1]	New Orleans	A. J. Hertzog	14,355	5,167	5,167	198	3	7/1	3	25
Shreveport Charity Hospital[*]	Shreveport, La.	W. R. Mathews	15,439	3,906	3,906	290	1	7/1	1	60
Eastern Maine General Hospital[*1]	Bangor, Me.	R. Wadsworth	8,178	6,171	5,741	103	2	7/1	2[p]	50
Maine General Hospital[*1]	Portland, Me.	J. F. Porter	9,751	5,350	4,970	185	1	7/1	3	50
Baltimore City Hospitals[*1]	Baltimore	C. G. Warner	6,782	1,148	1,133	384	4	7/1	3	15
Johns Hopkins Hospital[*1]	Baltimore	A. R. Rich	18,783	4,063	4,063	518	4	7/1	3	41.66
Sinai Hospital[*1]	Baltimore	T. Weinberg	10,103	4,202	4,202	185	2	7/1	3	25
Union Memorial Hospital[*]	Baltimore	W. C. Merkel	8,801	2,092	2,092	155	1	7/1	2[p]	20
University Hospital[*1]	Baltimore	H. R. Spencer	11,072	5,653	5,653	241	..	7/1	3[*]	75
Beverly Hospital[*]	Beverly, Mass.	D. E. Brown	5,250	1,332	1,332	122	1	7/1	3	50
Beth Israel Hospital[*]	Boston	M. Schlesinger	5,960	3,284	3,284	146	3	1/1, 7/1	3	41.66
Boston City Hospital[*1]	Boston	F. Parker, Jr.	39,172	5,404	5,404	935	11	7/1	3	90
Boston Lying-In Hospital[29]	Boston	A. T. Hertig	3,095	802	802	19	2	1/1	1[p]	75
Children's Hospital[*1]	Boston	S. Farber	9,460	1,553	1,553	257	12	Varies	..	...
Massachusetts General Hospital[*]	Boston	...	.....	.....	.....	...	..	....	3	...
Massachusetts Memorial Hospital[*1]	Boston	R. Osgood	8,430	2,723	2,717	155	4	7/1	3	50
New England Deaconess Hospital	Boston	S. Warren	7,700	8,506	8,506	145	3	7/1	3	100
Peter Bent Brigham Hospital[*]	Boston	O. T. Bailey	4,921	2,126	2,121	188	..	7/1	3	...
St. Elizabeth's Hospital[*]	Boston	F. Parker, Jr.	9,461	2,424	2,261	99	2	7/1	1	75
Cambridge City Hospital[*]	Cambridge, Mass.	R. Z. Schulz	5,822	1,166	1,166	119	3	7/1	1	75
Mount Auburn Hospital[*1]	Cambridge, Mass.	H. E. MacMahon	7,016	2,363	2,363	119	1	7/1	1	100
Holyoke Hospital[*12]	Holyoke, Mass.	J. S. Grewal	3,740	7,619	.....	31	2	7/1	2[p]	50
Lawrence General Hospital[*1]	Lawrence, Mass.	L. S. Jolliffe	6,654	1,519	1,519	112	2	7/1	1[*]	100
Lynn Hospital[*]	Lynn, Mass.	H. Olken	7,819	2,633	2,633	119	1	7/1	1[*]	100
Newton-Wellesley Hospital[*1]	Newton-Lower Falls, Mass.	D. Skinner	6,235	2,828	2,248	97	..	....	2[p]	...
Quincy City Hospital[*]	Quincy, Mass.	R. J. Pollak	8,493	4,764	1,925	133	1	7/1	2[p]	150
Salem Hospital[*1]	Salem, Mass.	D. A. Nickerson	7,322	1,914	1,914	96	1	Varies	3	50
Pondville Hospital	Walpole, Mass.	S. Warren	884	1,471	1,471	43	..	....	1	...
Memorial Hospital[*]	Worcester, Mass.	R. C. Sniffen	8,106	2,787	2,007	107	..	....	1[*]	...
Worcester City Hospital[*1]	Worcester, Mass.	R. Goodale	11,913	3,264	2,964	208	1	1/1	4[p]	100
Worcester State Hospital	Worcester, Mass.	...	876	92	92	73	..	....	3	...
University Hospital[*1]	Ann Arbor, Mich.	C. V. Weller	17,041	9,975	.....	465	4	7/1	3	129.60
Leila Y. Post Montgomery Hospital[*]	Battle Creek, Mich.	G. W. Scheim	7,084	2,600	2,600	62	..	7/1	1	150
City of Detroit Receiving Hospital[*1]	Detroit	O. A. Brines	19,323	3,739	3,739	532	4	7/1	4[p]	189.08
Grace Hospital[*1]	Detroit	C. I. Owen	24,243	12,230	12,230	294	1	7/1	3	75
Harper Hospital[*1]	Detroit	P. F. Morse	21,371	7,425	.....	171	1	7/1	4[p]	110
Henry Ford Hospital[*1]	Detroit	F. W. Hartman	18,320	7,657	7,657	305	6	7/1	4[p]	200
Herman Kiefer Hospital[*]	Detroit	G. E. Fritz	5,740	721	721	181	1	7/1	1	365
Mount Carmel Hospital[*]	Detroit	L. W. Gardner	17,099	4,314	4,314	150	1	....	4[p]	...
Providence Hospital[*]	Detroit	D. H. Kaump	16,924	3,766	3,766	196	1	7/1	3	140
Woman's Hospital[*1]	Detroit	D. Beaver	9,756	4,497	4,349	71	1	7/1	1	165
Wayne County General Hospital and Infirmary[*1]	Eloise, Mich.	S. E. Gould	7,172	3,290	3,290	520	2	7/1	3	235
Hurley Hospital[*]	Flint, Mich.	G. R. Backus and R. J. Jermstad	16,721	5,357	3,495	160	1	7/1	4[p]	135
Blodgett Memorial Hospital[*]	Grand Rapids, Mich.	C. A. Payne	6,440	5,985	5,746	169	1	7/1	1	200
Butterworth Hospital[*1]	Grand Rapids, Mich.	P. A. Van Pernis	14,587	6,105	4,821	185	1	7/1	4[p]	100
Edward W. Sparrow Hospital[*1]	Lansing, Mich.	C. F. Black	9,446	2,918	2,918	122	1	7/1	1[p]	325
Saginaw General Hospital[*1]	Saginaw, Mich.	R. V. Bucklin	[illegible]	2,111	2,101	126	..	7/1	2[p]	85
St. Mary's Hospital[*1]	Duluth, Minn.	W. V. Knoll	10,476	6,072	5,804	236	1	7/1	1	100
Minneapolis General Hospital[*1]	Minneapolis	S. S. Barron	9,405	2,126	1,907	407	1	1/1, 7/1	3	125
Northwestern Hospital[*]	Minneapolis	S. V. Lofsness	10,537	3,010	.....	110	1	10/1	3	150
St. Barnabas Hospital[*1]	Minneapolis	N. E. Lufkin	9,481	2,846	2,155	183	1	1/1	2[p]	125
Swedish Hospital[*]	Minneapolis	A. R. Jay	14,398	.....	.....	167	..	7/1	3[p]	125
University of Minnesota Hospitals[*1]	Minneapolis	J. Dawson	16,288	5,906	5,729	333	9	7/1	4[p]	125
Mayo Foundation	Rochester, Minn.	...	.....	.....	.....	...	18	....	3	92.50
Ancker Hospital[*1]	St. Paul	J. F. Noble	7,957	1,398	1,161	411	1	7/1	1	91.50
Charles T. Miller Hospital[*1]	St. Paul	K. Ikeda	8,929	4,621	4,351	142	1	7/1	3	115
St. Louis County Hospital[*]	Clayton, Mo.	W. G. Brown	3,698	1,408	1,349	208	1	7/1	3	80
Kansas City General Hospital No. 1[*]	Kansas City, Mo.	V. B. Buhler	10,315	2,974	2,324	501	2	7/1	2[p]	50
Menorah Hospital[*1]	Kansas City, Mo.	H. Cohen	6,049	3,169	2,409	78	1	1/1, 7/1	1[p]	125
Research Hospital[*1]	Kansas City, Mo.	H. K. B. Allebach	7,685	4,557	4,414	127	1	7/1	3	100
St. Joseph Hospital[*]	Kansas City, Mo.	R. Kerr	12,575	6,281	3,708	198	2	7/1	3	150
St. Luke's Hospital[*1]	Kansas City, Mo.	F. C. Helwig	11,307	7,839	6,547	196	1	7/1	4[p]	75
Barnes Hospital[*1]	St. Louis	R. A. Moore	16,827	7,197	7,197	297	10	7/1	3	25
Homer G. Phillips Hospital[*1]	St. Louis	J. A. Saxton	13,977	1,827	1,627	193	1	7/1	1	90
Jewish Hospital[*1]	St. Louis	S. H. Gray	8,788	2,635	2,635	132	1	7/1	1	50
Missouri Baptist Hospital[*1]	St. Louis	W. E. B. Hall	13,282	7,283	3,600	98	1	7/1	2[p]	70
St. Louis City Hospital[*1]	St. Louis	J. Saxton	17,673	3,743	6,226	570	3	7/1	3	...
St. Mary's Group of Hospitals[*1]	St. Louis	H. Pinkerton	10,655	9,006	8,101	123	2	7/1	3	35
Montana Deaconess Hospital[*]	Great Falls, Mont.	E. Hildebrand	5,955	2,224	2,194	115	1	7/1	2[p]	200
Lincoln General Hospital[*10]	Lincoln, Neb.	F. H. Tanner	6,430	2,413	280	73	1	7/1	1	75
Creighton Memorial St. Joseph's Hospital[*1]	Omaha	B. C. Russum	13,128	20,679	18,079	128	3	7/1	3	100
Nebraska Methodist Hospital[*1]	Omaha	J. Schenken	6,124	3,556	3,556	79	2	7/1	4[p]	100
University of Nebraska Hospital[*1]	Omaha	J. P. Tollman	3,553	1,719	1,719	97	4	7/1	3	75
Mary Hitchcock Memorial Hospital[*1]	Hanover, N. H.	R. E. Miller	5,650	2,806	2,607	123	4	7/1	3	150
Elliot Hospital	Manchester, N. H.	S. M. Brooks	3,792	3,228	2,170	52	1	7/1	1[*]	200
Atlantic City Hospital[*]	Atlantic City, N. J.	F. Konzelmann	8,206	2,024	2,024	145	1	7/1	3[p]	50
Cooper Hospital[*]	Camden, N. J.	W. T. Read, Jr.	11,476	2,706	2,646	209	1	7/1	3	83.33
West Jersey Hospital[*]	Camden, N. J.	W. R. Platt	9,093	1,868	4,630	166	3	7/1	4[p]	125
Jersey City Hospital[*1]	Jersey City, N. J.	A. Gnassi	24,331	5,310	5,310	340	3	....	1	25
Monmouth Memorial Hospital[*1]	Long Branch, N. J.	J. A. Ferguson	7,645	4,354	3,986	146	1	7/1	3[p]	150
Mountainside Hospital[*1]	Montclair, N. J.	J. L. Work	7,261	3,586	3,753	115	1	7/1	3[p]	100.74
Burlington County Hospital	Mount Holly, N. J.	J. T. Bauer	3,967	651	651	89	1	7/1	1[*]	100
Hospital of St. Barnabas and for Women and Children[*1]	Newark, N. J.	W. G. Bernhard	7,661	3,797	3,304	103	1	7/1	2[p]	100
Newark Beth Israel Hospital[*]	Newark, N. J.	L. Goldman	11,501	4,249	4,249	151	2	7/1	3	50
Newark City Hospital[*1]	Newark, N. J.	H. S. Martland	12,528	1,327	1,327	381	2	....	2[p]	60
Presbyterian Hospital	Newark, N. J.	S. A. Goldberg	9,489	4,243	4,243	72	..	....	1[p]	...
Orange Memorial Hospital[*1]	Orange, N. J.	A. R. Abel	9,543	.....	.....	80	..	....	2[p]	...
Passaic General Hospital[*]	Passaic, N. J.	J. R. Gannon	7,270	2,307	2,227	126	1	....	3[p]	100
Paterson General Hospital[*1]	Paterson, N. J.	A. H. Davis	9,068	5,238	4,225	133	2	7/1	2[p]	75
Muhlenberg Hospital[*1]	Plainfield, N. J.	C. G. Darlington	9,306	2,577	2,446	133	1	7/1	1[p]	150
Mercer Hospital[*1]	Trenton, N. J.	T. K. Rathmell	7,055	1,357	1,350	100	1	7/1	2[p]	150
Albany Hospital[*1]	Albany, N. Y.	A. W. Wright	15,296	6,636	6,636	327	3	7/1	3	41.66
Bender Hygienic Laboratory	Albany, N. Y.	J. J. Clemmer	.....	11,790	11,790	292	5	7/1	3	150
Binghamton City Hospital[*1]	Binghamton, N. Y.	V. W. Bergstrom	10,527	2,471	2,446	171	1	7/1	3	...
Beth El Hospital[*1]	Brooklyn	N. Mitchell	8,293	2,914	2,914	128	2	7/1	4[p]	100

Numerical and other references will be found on page 1215.

17. PATHOLOGY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated*	Surgical Specimens	Number Examined Microscopically	Autopsies	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Brooklyn Hospital*[1]	Brooklyn	J. A. DeVeer	9,023	3,680	3,680	148	3	7/1	3	25
Coney Island Hospital*[1]	Brooklyn	H. Fink	5,928	1,135	1,159	109	1	7/1	2[p]	80
Cumberland Hospital*[1]	Brooklyn	S. H. Polayes	7,939	1,428	1,397	221	1	7/1	3	80
Greenpoint Hospital*[1]	Brooklyn	R. Aronoff	6,270	9,872	9,736	120	1	7/1	4[p]	130
Jewish Hospital*[1]	Brooklyn	D. M. Grayzel	15,465	6,232	5,204	187	6	7/1	3	30
Kings County Hospital*[1]	Brooklyn	C. G. Burn	68,486	14,641	14,641	987	7	7/1	3	80
Long Island College Hospital*[1]	Brooklyn	W. H. Cook	10,925	3,866	3,866	113	3	7/1	3	50
Maimonides Hospital*[1]	Brooklyn	A. R. Kantrowitz	13,058	4,307	4,307	189	3	7/1	3	75
Methodist Hospital*[1]	Brooklyn	B. S. Herr, Jr.	9,781	3,324	3,324	139	1	7/1	1	25
St. John's Hospital*[1]	Brooklyn	R. Gettinger	4,802	1,585	1,585	51	1	1/1	1	100
Buffalo General Hospital*[1]	Buffalo	K. L. Terplan	11,558	5,165	5,153	204	6	7/1	3	25
Edward J. Meyer Memorial Hospital*[1]	Buffalo	S. Sanes	10,699	3,830	2,874	378	3	7/1	3	100
Millard Fillmore Hospital*	Buffalo	A. V. Postoloff	14,106	4,461	4,461	298	3	7/1	3	50
Flushing Hospital and Dispensary*[1]	Flushing, N. Y.	J. Werne	10,172	2,175	2,025	119	1	7/1	1[p]	100
Meadowbrook Hospital*[1]	Hempstead, N. Y.	T. J. Curphey	6,825	3,437	3,437	336	3	7/1	1	134
Mary Immaculate Hospital*	Jamaica, N. Y.	M. Bevilacqua	8,889	1,948	.....	74	2	7/1	2[p]	100
Queens General Hospital*[1]	Jamaica, N. Y.	A. Angrist	14,593	70,047	70,047	601	2	7/1	3	80
Charles S. Wilson Memorial Hospital*	Johnson City, N. Y.	A. Kosinski	9,309	3,042	3,042	145	1	7/1	3[p]	125
St. John's Long Island City Hospital*[1]	Long Island City, N. Y.	J. Werne	6,246	973	973	168	1	7/1	3[a], 1[p]	50
Mount Vernon Hospital*	Mount Vernon, N. Y.	J. G. Sharnoff	7,803	3,549	3,549	134	1	7/1	1[p]	200
Bellevue Hospital Div. IV, Open Division	New York City	.....	.....	.....	.....	...	..	....	4[p]	...
Bronx Hospital*[1]	New York City	J. Felsen	8,962	4,248	.....	89	2	7/1	3	75
Doctors Hospital[1]	New York City	J. R. Lisa	7,087	3,467	3,467	78	1	1/1, 7/1	1[p]	200
Flower and Fifth Avenue Hospitals*[1]	New York City	F. D. Speer	9,636	5,444	4,715	72	1	7/1	3	...
Fordham Hospital*[1]	New York City	L. J. Millman	10,811	1,983	1,983	347	3	7/1	1	80
Goldwater Memorial Hospital*[1]	New York City	J. Rosenthal	1,745	3,527	3,527	200	3	7/1	3	65.41
Harlem Hospital*	New York City	S. Weintraub	21,801	6,810	6,810	328	3	7/1	1	80
Hospital for Joint Diseases*[1]	New York City	H. L. Jaffe	5,828	2,637	2,637	47	1	7/1	1[p]	40
Jewish Memorial Hospital*	New York City	A. Angrist	5,743	2,089	.....	79	1	7/1	1	100
Lebanon Hospital*[1]	New York City	J. C. Ehrlich	6,561	2,692	2,692	107	2	7/1	2[p]	100
Lenox Hill Hospital*[1]	New York City	R. M. Paltauf	12,615	4,682	4,682	81	2	Varies	3	50
Lincoln Hospital*[1]	New York City	C. Brown	12,143	2,266	2,208	250	2	7/1	3	80
Memorial Hospital[1]	New York City	F. Stewart	6,744	18,807	18,807	142	8	1/1, 7/1	2[a]	15
Metropolitan Hospital*[1]	New York City	A. Saccone	13,158	1,727	1,604	217	2	7/1	1	130
Montefiore Hospital for Chronic Diseases*[1]	New York City	H. M. Zimmerman	4,367	.....	.....	362	3	7/1	3	50
Morrisania City Hospital*[1]	New York City	W. Aronson	12,142	5,371	5,371	257	1	7/1	4[p]	80
Mount Sinai Hospital*	New York City	P. Klemperer	16,059	7,638	7,638	308	4	7/1	3	50
New York City Hospital*[1]	New York City	J. R. Lisa	12,247	1,932	1,604	218	3	7/1	3	80
New York Hospital*[1]	New York City	J. G. Kidd	20,904	7,491	6,570	350	5	7/1	2	25
Presbyterian Hospital*[1]	New York City	H. P. Smith	30,220	6,426	6,204	412	8	....	3	150
Roosevelt Hospital*[1]	New York City	W. W. Brandes	8,748	3,654	3,654	159	2	7/1	1	...
St. Barnabas Hospital for Chronic Diseases [1,54]	New York City	H. K. Russell	374	2,500	2,500	79	1	7/1	2[p]	75
St. Clare's Hospital*	New York City	J. M. Ravid	10,138	2,491	2,491	142	1	7/1	2[p]	25
St. Luke's Hospital*	New York City	B. E. Clarke	9,839	3,087	3,087	163	3	7/1	4[p]	50
St. Vincent's Hospital*[1]	New York City	A. Rattino	11,523	2,908	2,908	249	3	7/1	1	50
Sydenham Hospital*	New York City	I. Chapman	5,074	1,846	1,806	70	1	7/1	1	130
University Hospital*[1]	New York City	M. N. Richter	9,000	5,970	5,098	104	4	7/1	3	80
Willard Parker Hospital [1]	New York City	V. B. Dolgopol	4,927	97	97	47	1	7/1	1	130
United Hospital*[1]	Port Chester, N. Y.	M. Loder	6,136	2,139	2,157	74	1	7/1	1[p]	100
Rochester General Hospital*[1]	Rochester, N. Y.	M. G. Bohrod	12,442	5,632	5,429	221	4	7/1	3	55
St. Mary's Hospital*[1]	Rochester, N. Y.	J. Adler	13,083	3,339	8,184	163	5	7/1	1	125
Strong Memorial—Rochester Municipal Hospitals*[1]	Rochester, N. Y.	G. H. Whipple	16,080	4,218	4,218	438	1	7/1	3[a]	41.66
Ellis Hospital*[1]	Schenectady, N. Y.	E. Kellert	15,567	4,335	4,335	208	2	7/1	3	100
Syracuse University Medical Center Hospitals	Syracuse, N. Y.	.....	.....	.....	.....	...	..	....	3	...
Samaritan Hospital*[1]	Troy, N. Y.	C. M. Alexander	5,366	2,185	2,185	64	1	7/1	1	...
Grasslands Hospital*[1]	Valhalla, N. Y.	D. M. Spain	4,489	1,646	1,645	207	2	7/1	3	125
White Plains Hospital*[1]	White Plains, N. Y.	H. D. Kesten	6,910	2,143	2,143	110	1	7/1	2[p]	130
Charlotte Memorial Hospital*[1]	Charlotte, N. C.	P. Kimmelstiel	11,000	6,000	5,922	179	3	7/1	3	75
Duke Hospital*[1]	Durham, N. C.	W. D. Forbus	13,952	10,248	10,248	220	11	7/1	3	83.33
Watts Hospital*[1]	Durham, N. C.	J. U. Gunter	8,608	3,166	2,782	125	1	7/1	2	50
North Carolina Baptist Hospital*[1]	Winston-Salem, N. C.	R. P. Morehead	8,370	19,455	19,455	365	5	1/1, 7/1	3	41.66
City Hospital*	Akron, Ohio	L. Catron	14,858	5,631	5,631	226	3	7/1	3	115
Peoples Hospital*[1]	Akron, Ohio	G. R. Dochat and W. E. James	9,981	4,131	3,695	111	1	7/1	3[p]	100
Aultman Hospital*	Canton, Ohio	D. G. Henderson	10,363	2,623	2,611	223	2	7/1	1	75
Bethesda Hospital*[1]	Cincinnati	R. J. Davis	8,690	4,546	2,239	112	2	7/1	2[a]	150
Christ Hospital*	Cincinnati	J. W. Leichliter	11,200	3,705	3,395	148	1	7/1	1	90
Cincinnati General Hospital*[1]	Cincinnati	E. Gall	15,449	3,125	3,125	593	6	7/1	4[p]	...
Good Samaritan Hospital*[1]	Cincinnati	W. McK. Germain	16,783	6,523	4,098	197	1	7/1	5	105
Jewish Hospital*	Cincinnati	P. Wasserman	12,763	4,409	4,715	226	1	7/1	4[p]	60
City Hospital*[1]	Cleveland	T. D. Kinney	11,457	2,472	2,472	456	6	7/1	3	60
Cleveland Clinic Hospital[1]	Cleveland	J. B. Hazard	8,537	4,775	4,753	132	11	7/1	4[p]	135
Mount Sinai Hospital*[1]	Cleveland	B. S. Kline	11,441	3,773	3,773	124	2	7/1	2	100
St. Luke's Hospital	Cleveland	R. Dominguez	14,622	6,167	5,908	166	2	6/25	4[p]	60
St. Vincent Charity Hospital*	Cleveland	D. J. Rebbeck	7,729	2,104	2,150	91	1	7/1	3[p]	50
University Hospitals*[1]	Cleveland	A. R. Moritz	22,380	7,129	7,129	421	7	7/1	3	25
Grant Hospital*	Columbus, Ohio	W. H. Benham	10,628	2,503	2,000	116	1	7/1	1	200
Ohio State University Hospital*[1]	Columbus, Ohio	H. L. Reinhart	8,847	3,949	3,949	309	4	7/1	4[p]	50
White Cross Hospital*[1]	Columbus, Ohio	R. S. Fidler	11,302	8,145	8,145	112	2	7/1	4[p]	100
Miami Valley Hospital*[1]	Dayton, Ohio	M. Oosting	15,435	8,136	8,136	255	2	7/1	4[p]	75
Huron Road Hospital*[1]	E. Cleveland, Ohio	E. Goodsitt	10,642	3,708	3,632	114	1	7/1	4[p]	75
Mercy Hospital*	Hamilton, Ohio	K. E. Lande	8,769	1,029	1,029	110	1	7/1	1[p]	100
St. Rita's Hospital*	Lima, Ohio	C. L. Blumstein	11,372	2,714	2,049	115	..	7/1	1[p]	100
Springfield City Hospital*	Springfield, Ohio	M. P. Hunter	10,915	5,718	4,398	213	1	7/1	1[a]	200
Mercy Hospital*	Toledo, Ohio	E. L. Burns	12,191	5,790	4,691	177	1	7/1	3	125
St. Vincent's Hospital*[1]	Toledo, Ohio	M. F. Vidoli	10,900	3,974	3,974	150	1	7/1	1	...
Toledo Hospital*[1]	Toledo, Ohio	B. Steinberg	9,495	3,598	3,188	109	3	7/1	4[p]	100
Youngstown Hospital*[1]	Youngstown, Ohio	H. E. Rappaport and H. K. Giffen	20,250	4,905	4,905	290	3	7/1	4[p]	75
University Hospitals*	Oklahoma City	H. C. Hopps	7,106	2,551	2,197	135	1	7/1	3	35
Hillcrest Memorial Hospital*[1]	Tulsa, Okla.	L. Lowbeer	11,293	2,719	2,719	106	..	7/1	1[a]	75
Emanuel Hospital*[1]	Portland, Ore.	H. H. Foskett	13,087	7,632	6,040	218	1	7/1	1	75
Good Samaritan Hospital*[1]	Portland, Ore.	W. L. Lehman	14,044	4,000	3,900	197	2	1/1, 7/1	4[p]	75

Numerical and other references will be found on page 1215.

17. PATHOLOGY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated*	Surgical Specimens	Number Examined Microscopically	Autopsies	Asst. Res. and Residencies Offered*	Beginning of Service (Month)	Length of Usual Program (Years)	Beginning Stipend (Month)
Providence Hospital[a]	Portland, Ore.	J. Minckler	7,908	3,386	2,560	170	1	7/1	3*	75
St. Vincent's Hospital[a]	Portland, Ore.	F. R. Menne	10,909	6,478	6,478	138	1	7/1	4*	75
University of Oregon Medical School Hospitals and Clinics[a]	Portland, Ore.	W. C. Hunter	7,202	3,152	3,152	373	4	7/1	3	75
Abington Memorial Hospital[a]	Abington, Pa.	J. Feiman	8,538	3,264	3,226	101	3	7/1	4*	75
Allentown Hospital[a]	Allentown, Pa.	J. J. Wenner	12,085	5,156	5,812	150	1	7/1	3	100
Sacred Heart Hospital[a]	Allentown, Pa.	D. E. Stader	8,169	4,437	4,437	129	1	7/1	1*	150
St. Luke's Hospital[a]	Bethlehem, Pa.	T. A. Cope, Jr.	10,469	2,324	1,947	162	1	7/1	3*	130
Bryn Mawr Hospital[a]	Bryn Mawr, Pa.	M. M. Strumia	8,190	3,504	3,239	124	2	7/1	4*	75
George F. Geisinger Memorial Hospital and Clinic[a]	Danville, Pa.	H. F. Hunt	9,674	2,733	2,644	98	1	7/1	1	75
Fitzgerald Mercy Hospital[a]	Darby, Pa.	A. Dapena	7,315	1,870	1,760	76	1	7/1	1	100
Hamot Hospital[a]	Erie, Pa.	E. L. Armstrong	9,365	2,389	2,389	177	5	7/1	4*	150
Lancaster General Hospital[a]	Lancaster, Pa.	.....	.....	.....	.....	...	.....	.....	1*	...
Episcopal Hospital[a]	Philadelphia	W. P. Belk	9,046	1,508	1,508	150	1	7/1	3*	50
Frankford Hospital[a]	Philadelphia	W. L. C. Spaeth	5,051	1,300	1,300	108	1	7/1	1*	200
Germantown Dispensary and Hospital[a]	Philadelphia	F. B. Lynch, Jr.	8,813	1,900	1,000	125	1	7/1	3*	50
Graduate Hospital of the Univ. of Pennsylvania[a]	Philadelphia	A. Valdes-Dapena	8,322	3,051	3,051	130	3	7/1	3	...
Hahnemann Hospital[a]	Philadelphia	J. E. Gregory	14,037	4,572	4,572	307	6	9/1	4*	50
Hospital of the University of Pennsylvania[a]	Philadelphia	B. Locke	30,337	7,332	7,332	452	12	Varies	3	...
Hospital of the Woman's Medical College of Pennsylvania[a]	Philadelphia	M. A. Geiss	4,854	1,400	1,386	49	1	7/1	3*	100
Jefferson Medical College Hospital[a]	Philadelphia	C. J. Bucher	21,141	8,151	8,151	297	2	.....	3	...
Jewish Hospital[a]	Philadelphia	H. Ingleby	10,150	3,381	.....	307	2	7/1	1	50
Lankenau Hospital[a]	Philadelphia	C. E. Brown	6,211	.....	7,712	140	2	7/1	4*	50
Mount Sinai Hospital[a]	Philadelphia	D. R. Meranze	6,776	3,080	3,080	181	3	7/1	4*	50
Pennsylvania Hospital[a]	Philadelphia	A. R. Crane	10,844	4,330	.....	186	3	.....	4*	50
Philadelphia General Hospital[a]	Philadelphia	J. H. Clark	29,397	4,671	4,674	1,348	5	7/1	3	75
Presbyterian Hospital[a]	Philadelphia	R. P. Custer	9,657	2,400	2,400	165	2	7/1	4*	...
Temple University Hospital[a]	Philadelphia	E. E. Aegerter	16,466	11,650	11,650	290	3	7/1	3	50
Allegheny General Hospital[a]	Pittsburgh	S. R. Haythorn	12,183	2,987	2,727	121	1	7/15	3	100
Children's Hospital[a]	Pittsburgh	M. L. Menten	3,550	303	339	91	1	7/1	1	41.66
Mercy Hospital[a]	Pittsburgh	H. H. Permar	14,867	4,445	3,536	151	1	7/1	4*	100
Montefiore Hospital[a]	Pittsburgh	K. Yarbrough	8,279	3,307	2,657	126	1	7/1	3*	50
Presbyterian Hospital[a]	Pittsburgh	G. R. Lacy	5,318	2,236	1,605	80	3	7/1	3	41.67
St. Francis Hospital[a]	Pittsburgh	R. C. Hamilton	13,025	2,142	2,344	139	2	7/1	3	100
Western Pennsylvania Hospital[a]	Pittsburgh	A. Graham	13,816	3,367	3,367	134	..	7/1	3*	100
Reading Hospital[a]	Reading, Pa.	W. P. Jennings	10,487	2,764	2,762	253	1	7/1	3	125
Robert Packer Hospital[a]	Sayre, Pa.	C. H. De Wan	10,451	2,619	2,106	169	2	7/1	3*	150
Scranton State Hospital[a]	Scranton, Pa.	E. P. Swartz	6,228	2,031	2,031	122	1	7/1	3*	125.50
Williamsport Hospital[a]	Williamsport, Pa.	M. G. Colvin	8,731	3,651	2,572	95	1	7/1	3	100
York Hospital[a]	York, Pa.	L. C. Pusch	10,178	2,038	2,014	143	..	7/1	3*	100
Rhode Island Hospital[a]	Providence, R. I.	H. Fanger	14,924	5,754	5,754	365	8	7/1	3*	50
Roper Hospital[a,15]	Charleston, S. C.	K. M. Lynch	12,637	18,108	17,614	223	2	7/1	3	150
Baroness Erlanger Hospital[a]	Chattanooga, Tenn.	J. Adams	14,613	6,415	6,363	139	1	7/1	4*	75
Baptist Memorial Hospital[a]	Memphis, Tenn.	M. L. Trumbull	13,040	7,468	7,432	304	2	7/1	2	75
John Gaston Hospital[a]	Memphis, Tenn.	D. Sprunt	16,497	3,084	2,177	619	9	7/1	4*	...
Methodist Hospital[a]	Memphis, Tenn.	W. W. Tribby	12,629	4,794	7,750	112	4	7/1	4*	75
St. Joseph Hospital[a]	Memphis, Tenn.	T. C. Moss	10,830	11,097	4,332	83	1	7/1	3*	100
Nashville General Hospital[a]	Nashville, Tenn.	W. A. DeMunbrun	6,142	1,757	1,625	106	1	7/1	3*	52.50
Vanderbilt University Hospital[a]	Nashville, Tenn.	E. W. Goodpasture	9,405	2,100	2,086	183	5	7/1	3	35.41
Baylor University Hospital[a]	Dallas, Texas	J. M. Hill	17,726	7,004	.....	156	6	7/1	3	50
Parkland Hospital[a]	Dallas, Texas	E. E. Muirhead	7,779	2,764	2,764	239	4	7/1	3	50
St. Paul's Hospital[a]	Dallas, Texas	J. L. Goforth	12,839	4,421	3,734	167	3	7/1	4*	100
University of Texas Medical Branch Hospitals John Sealy Hospital[a]	Galveston, Texas	E. Baird	10,201	4,068	3,997	258	5	7/1	3	100
Hermann Hospital[a]	Houston, Texas	V. H. Keller	10,812	.....	.....	170	1	.....	4*	75
Jefferson Davis Hospital[a]	Houston, Texas	W. W. Coulter, Sr.	12,555	11,481	8,402	317	..	7/1	3	...
M. D. Anderson Hospital for Cancer Research	Houston, Texas	.....	.....	.....	.....	...	.....	.....	3*	...
Baptist Memorial Hospital[a]	San Antonio, Texas	A. O. Severance	12,674	5,000	4,984	98	1	7/1	3*	200
Santa Rosa Hospital[a]	San Antonio, Texas	J. M. Moore	14,220	4,631	4,086	138	2	7/1	3	200
Dr. W. H. Groves Latter-Day Saints Hospital[a]	Salt Lake City	J. H. Carlquist	14,704	5,233	5,132	137	..	7/1	1*	75
Holy Cross Hospital[a]	Salt Lake City	C. McNeil	7,302	3,775	2,937	66	1	7/1	1*	75
Salt Lake County General Hospital[a]	Salt Lake City	F. D. Gunn	3,402	1,564	1,411	160	2	.....	3	...
Mary Fletcher Hospital[a]	Burlington, Vt.	B. Pearson	6,661	4,000	4,000	116	3	7/1	3	50
University of Virginia Hospital[a]	Charlottesville, Va.	J. R. Cash and W. E. Bray, Sr.	14,573	14,149	14,149	232	..	.....	3*	...
De Paul Hospital[a]	Norfolk, Va.	A. F. Strause	8,539	4,333	4,302	151	1	7/1	3*	100
Norfolk General Hospital[a]	Norfolk, Va.	L. J. Motyre and E. D. Levy	9,005	4,003	.....	84	1	7/1	3	125
Medical College of Virginia Hospital Division[a]	Richmond, Va.	G. E. Williams and F. Apperly	17,395	9,508	9,508	333	5	.....	3	...
King County Hospital, Unit No. 1 (Harborview)[a]	Seattle	C. R. Jensen	11,750	2,198	1,849	472	..	7/1	3	90
Providence Hospital[a]	Seattle	D. G. Mason	12,302	3,013	1,904	219	1	7/1	3	100
Swedish Hospital[a]	Seattle	P. K. Lund	13,499	18,001	12,532	306	1	.....	1	100
Deaconess Hospital[a]	Spokane, Wash.	R. F. E. Stier	8,978	4,637	3,441	150	1	7/1	3	150
St. Luke's Hospital[a]	Spokane, Wash.	O. O. Christianson	7,108	3,311	3,040	100	1	7/1	3*	125
St. Joseph's Hospital[a]	Tacoma, Wash.	C. R. McColl	8,273	1,063	.....	121	1	7/1	1	...
Tacoma General Hospital[a]	Tacoma, Wash.	C. P. Larson	8,550	6,709	5,701	73	3	7/1	3*	150
Charleston General Hospital[a]	Charleston, W. Va.	W. Putschar	8,504	2,038	2,002	116	..	7/1	3	100
State of Wisconsin General Hospital[a]	Madison, Wis.	D. M. Angevine and W. D. Stovall	14,448	4,071	3,940	250	5	1/1, 7/1	3	25
Columbia Hospital[a]	Milwaukee	G. Ritchie	5,367	2,271	1,719	107	1	7/1	3	75
Milwaukee County Hospital[a]	Milwaukee	J. F. Kuzma	19,117	2,651	2,580	168	3	7/1	4*	175.50
St. Joseph's Hospital[a]	Milwaukee	W. A. D. Anderson	13,086	3,645	2,304	131	1	7/1	4*	75
St. Mary's Hospital[a]	Milwaukee	S. Passin	7,667	3,400	2,173	113	2	7/1	1*	...
Queens Hospital[a]	Honolulu, Hawaii	S. Price	11,255	4,147	3,859	222	2	7/1	3	75
University Hospital (School of Tropical Medicine)	San Juan, Puerto Rico	E. Koppisch	736	361	361	16	3	7/1	3*	150

Numerical and other references will be found on page 1215.

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18. PEDIATRICS

The following services are approved by the Council and the American Board of Pediatrics.
Hospitals, 216 Assistant Residencies and Residencies, 1,001

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
United States Army										
Letterman General Hospital*	San Francisco	C. L. Milburn	349	3,733	21	19	3	1/1, 7/1	2	n
Fitzsimmons General Hospital*	Denver	M. W. Stark	452	11,036	9	8	4	1/1, 7/1	2	n
Army Medical Center*[15]	Washington, D. C.	O. C. Bruton	992	10,293	12	12	4	7/1	2	n
Brooke Army Medical Center*[14]	San Antonio, Texas	L. J. Geppert	3,104	16,634	55	55	6	7/1	2	n
United States Navy										
U. S. Naval Hospital*	Oakland, Calif.	M. Kurzrok	617	972	1	1	..	....	1	n
U. S. Naval Hospital*[1]	Bethesda, Md.	J. T. Fowler	780	13,256	23	28	2	Varies	2	n
U. S. Naval Hospital*	Chelsea, Mass.	D. W. Sherwood	289	6,895	18	15	3	....	1	n
U. S. Naval Hospital*	Philadelphia	J. F. Shaul	231	9,338	10	3	4	1/1, 7/1	2	n
Federal Security Agency										
Freedmen's Hospital*[1]	Washington, D. C.	R. B. Scott	589	2,431	35	21	4	7/1	2	n
Nonfederal										
Carraway Methodist Hospital*	Birmingham, Ala.	S. Wainwright	858	13,021	22	9	..	7/1	..	150
Children's Hospital[1]	Birmingham, Ala.	A. A. Walker	2,234	9,341	42	26	3	7/1	2	50
Jefferson-Hillman Hospital*[1]	Birmingham, Ala.	B. Chenoweth, Jr.	2,321	7,408	209	150	4	7/1	2	50
Employees' Hospital of Tennessee Coal, Iron and Railroad Company*	Fairfield, Ala.	G. C. McCullough	906	15,061	23	12	4	7/1	1	225
City Hospital*	Mobile, Ala.	J. MacBell	958	2,384	78	39	..	....	1	...
University Hospital*[1]	Little Rock, Ark.	W. A. Reilly	594	5,037	66	34	4	7/1	2	75
San Joaquin General Hospital*[1]	French Camp, Calif.	W. T. Auld	2,190	8,128	58	48	1	7/1	1	230
General Hospital of Fresno County*[1]	Fresno, Calif.	D. L. Hyde	1,391	3,929	82	30	3	7/1	1	218
Seaside Memorial Hospital*[1]	Long Beach, Calif.	J. R. Jimerson	2,098	.....	45	13	1	7/1	1	150
California Babies' and Children's Hospital	Los Angeles	J. W. St. Geme	893	16,432	5	5	1	7/1	1	100
Children's Hospital*[1]	Los Angeles	E. S. Fish	1,913	44,349	27	..	6	1/1, 7/1	2	40
Los Angeles County Hospital*[1]	Los Angeles	M. B. Brooks	3,783	8,853	163	93	11	Varies	2	165
Queen of Angels Hospital*[1]	Los Angeles	M. H. Jones	1,779	1,454	19	..	2	7/1	1	100
White Memorial Hospital*[1]	Los Angeles	M. B. Brooks	449	17,079	18	15	4	....	2	120
Children's Hospital of the East Bay[1]	Oakland, Calif.	C. D. Sweet	5,467	26,837	65	58	9	7/1, 8/1	2	150
Highland-Alameda Hospital*[1]	Oakland, Calif.	A. L. Gleason	2,611	.....	51	23	2	....	1	135
Permanente Foundation Hospital*[1]	Oakland, Calif.	A. King	707	2,728	6	3	..	....	1	...
Children's Hospital*[1]	San Francisco	C. F. Gelston	767	3,913	41	29	3	7/1	2	50
Mount Zion Hospital*[1]	San Francisco	E. Wolff	358	992	19	18	1	....	1	50
St. Mary's Hospital*[1]	San Francisco	R. Flood	2,044	3,160	15	11	1	7/1	1	100
San Francisco Hospital*[1]	San Francisco	....	.....	.....	..	..	2	7/1	..	175
Stanford University Hospitals*[1]	San Francisco	J. A. Anderson	488	16,445	30	25	5	7/1	2	50
University of California Hospital*[1]	San Francisco	W. C. Deamer	1,496	14,670	45	41	4	7/1	2	75
Harbor General Hospital*	Torrance, Calif.	V. J. Rounds	632	1,516	12	8	3	7/1	2	165
Children's Hospital[1]	Denver	M. Gardner	3,322	19,421	84	81	10	7/1	2	50
University of Colorado Medical Center										
Colorado General Hospital*[1]	Denver	H. H. Gordon	369	8,445	16	16	14	7/1	2	75
Denver General Hospital*[1,9]	Denver	H. H. Gordon	1,429	8,961	24	19	5	7/1	2	75
Hartford Hospital*[1]	Hartford, Conn.	E. Caulfield	975	135	22	14	2	7/1	2	50
Grace-New Haven Community Hospital New Haven Unit (University Service)*[1]	New Haven, Conn.	G. Powers	2,762	11,449	92	66	5	7/1	2	40
Hospital of St. Raphael*[1]	New Haven, Conn.	W. McGuire	1,605	.....	18	2	1	7/1	1	75
Delaware Hospital*[1]	Wilmington, Del.	C. E. Wagner	1,709	1,170	63	48	2	7/1	1	60
Children's Hospital	Washington, D. C.	J. S. Wall	8,997	62,284	127	109	6	7/1	2	40
Gallinger Municipal Hospital*[1]	Washington, D. C.	L. K. Sweet	1,168	12,074	32	15	5	7/1	2	100
Providence Hospital*	Washington, D. C.	W. O'Donnell	1,721	879	11	3	1	7/1	1	75
Duval Medical Center*[1]	Jacksonville, Fla.	L. W. Holloway	529	.....	76	57	..	7/1	1	125
St. Vincent's Hospital*[1]	Jacksonville, Fla.	L. W. Holloway	1,729	.....	25	18	3	7/1	1	100
Jackson Memorial Hospital*[1]	Miami, Fla.	W. A. Quillan	1,253	2,987	64	16	2	7/1	2	60
Crawford W. Long Memorial Hospital*[1]	Atlanta, Ga.	L. H. Muse	1,182	1,621	23	12	6	1/1, 7/1	2	75
Grady Memorial Hospital*[1]	Atlanta, Ga.	R. W. Dickson	975	32,291	78	37	9	7/1	2	20
Henrietta Egleston Hospital for Children[1]	Atlanta, Ga.	M. H. Roberts	1,170	.....	36	20	3	1/1, 7/1	2	55
University Hospital*[1]	Augusta, Ga.	P. Mulherin	1,066	2,183	66	23	7	7/1	..	40
Children's Memorial Hospital[1]	Chicago	J. A. Bigler	2,342	53,848	86	79	16	1/1, 7/1	2	75
Cook County Hospital*[1]	Chicago	A. Levinson	8,510	8,305	356	323	15	1/1, 7/1	2	32
Mercy Hospital-Loyola University Clinic*[1]	Chicago	H. W. Elghammer	1,793	2,738	20	14	4	7/1	1	25
Michael Reese Hospital*[1]	Chicago	A. F. Abt	6,119	12,818	210	108	10	7/1	2	25
Mount Sinai Hospital*	Chicago	P. L. Aries	2,721	3,611	46	44	2	1/1, 4/1	2	50
Presbyterian Hospital*	Chicago	H. N. Sanford	1,470*	5,951	66	50	2	....	2	25
Provident Hospital*[1]	Chicago	E. Bensley	457	3,638	10	9	3	7/1	2	50
Research and Educational Hospital*[1]	Chicago	H. G. Poncher	342	11,113	38	38	4	7/1	2	55
St. Joseph Hospital*[1]	Chicago	A. L. Hoyne	738	1,236	4	3	1	9/1	1	75
St. Luke's Hospital*[1]	Chicago	A. Biggs	1,319	.....	22	21	2	1/1, 7/1	2	25
St. Vincent's Infant and Maternity Hospital[1]	Chicago	H. M. Jacobs	934	.....	10	9	2	1/1, 7/1	1	50
University of Chicago Clinics*[1]	Chicago	F. H. Wright	1,010	19,076	42	34	15	7/1	2	...
Little Company of Mary Hospital*[1]	Evergreen Park, Ill.	E. G. Lawler	2,370	.....	11	7	1	7/1	1	100
West Suburban Hospital*	Oak Park, Ill.	C. D. Butler	2,021	1,293	19	15	..	7/1	1	150
St. Francis Hospital*[1]	Peoria, Ill.	F. H. Maurer	1,270	902	46	30	1	7/1	1	100
Indianapolis General Hospital*[1]	Indianapolis	B. K. Rust	2,027	8,867	83	28	3	7/1	2	80
Indiana University Medical Center*[1]	Indianapolis	M. Winters	1,941	3,418	169	119	5	7/1	2	68.33
Iowa Methodist Hospital*[1]	Des Moines, Iowa	L. F. Hill	3,890	7,551	78	60	7	7/1	2	75
University Hospitals*[1]	Iowa City	P. C. Jeans	1,334	2,521	65	49	5	....	2	...
University of Kansas Medical Center*[1]	Kansas City, Kan.	H. Miller	853	5,970	57	39	5	7/1	2	100
Louisville General Hospital*[1,12]	Louisville, Ky.	L. T. Davidson	2,328	12,193	107	98	13	7/1	2	45
St. Joseph Infirmary*	Louisville, Ky.	H. S. Andrews	1,961	940	47	26	3	7/1	2	75
Charity Hospital of Louisiana*[1]	New Orleans	....	3,477	27,484	165	102	21	7/1	2	25
Hotel Dieu, Sisters Hospital*[1]	New Orleans	A. Sullivan	1,794	.....	22	15	2	7/1	1	35
Southern Baptist Hospital*[1]	New Orleans	J. E. Strange	1,156	.....	11	..	2	7/1	1	150
Touro Infirmary*[1]	New Orleans	J. Graubarth	706	8,566	13	8	2	7/1	2	25
Shreveport Charity Hospital*	Shreveport, La.	C. H. Webb	2,067	1,476	106	45	3	7/1	2	60
Central Maine General Hospital*[1]	Lewiston, Maine	H. C. Thacher	948	875	20	18	1	7/1	1	100
Baltimore City Hospitals*[1]	Baltimore	H. E. Harrison	571	5,214	63	46	6	7/1	2	15
Johns Hopkins Hospital*[1]	Baltimore	F. F. Schwentker	1,309	51,731	197	164	14	7/1	2	41.66
†Mercy Hospital*[1]	Baltimore	E. Friedenwald	557	1,395	22	18	1	7/1	1	75
Sinai Hospital*[1]	Baltimore	A. J. Schaffer	479	4,589	46	41	3	7/1	1	25
Union Memorial Hospital*[1]	Baltimore	S. Grimes	627	1,822	12	8	2	7/1	1	20
University Hospital*[1]	Baltimore	J. E. Bradley	588	9,882	49	39	6	7/1	2	75
Boston City Hospital*[1]	Boston	M. J. English	4,347	9,548	80	56	2	7/1	2	110
Boston Floating Hospital[1]	Boston	J. M. Baty	1,765	.....	53	43	10	7/1	2	25

Numerical and other references will be found on page 1215.

18. PEDIATRICS—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Children's Hospital*[1]	Boston	C. Janeway	2,749	22,186	..	54	26	....	..	...
Massachusetts General Hospital*	Boston	.....	.....	.....	..	..	..	....	..	...
Worcester City Hospital*[1]	Worcester, Mass.	.....	725	.....	27	13	..	....	1	100
University Hospital*[1]	Ann Arbor, Mich.	J. Wilson	1,315	13,148	93	66	37	7/1	2	139.60
Children's Hospital[1]	Detroit	P. V. Woolley, Jr.	3,464	59,806	311	248	22	7/1	2	50
Harper Hospital*[1]	Detroit	D. J. Barnes	1,469	528	28	19	3	7/1	1	110
Henry Ford Hospital*[1]	Detroit	J. A. Johnston	1,673	24,053	30	16	7	7/1	2	200
Providence Hospital*	Detroit	S. S. Schooten	766	.....	20	15	1	....	1	140
Saginaw General Hospital*[1]	Saginaw, Mich.	R. M. Kempton	1,944	529	12	8	2	7/1	1	85
St. Mary's Hospital*	Duluth, Minn.	R. E. Nutting	943	.....	22	20	3	7/1	1	100
Minneapolis General Hospital*[1]	Minneapolis	A. V. Stoesser	2,294	5,148	63	33	3	1/1, 7/1	2	125
Northwestern Hospital*[1]	Minneapolis	E. S. Platou	527	.....	7	5	1	7/1	1	150
†St. Barnabas Hospital*[1]	Minneapolis	S. L. Arey	1,893	.....	30	28	2	7/1	..	125
University of Minnesota Hospitals*[1]	Minneapolis	I. McQuarrie	2,009	5,330	117	88	17	7/1	2	125
Mayo Foundation	Rochester, Minn.	R. L. J. Kennedy	.....	.....	..	..	15	....	2	92.50
Children's Mercy Hospital[1]	Kansas City, Mo.	H. M. Gilkey	1,565	12,116	75	57	3	1/1, 7/1	..	85
Kansas City General Hospital No. 1*	Kansas City, Mo.	E. H. Schorer	1,762	4,445	58	46	2	7/1	1	50
Homer G. Phillips Hospital*[1]	St. Louis	P. J. White	4,735	7,949	131	25	4	7/1	2	98
†Jewish Hospital*[1]	St. Louis	M. Peutch	818	1,796	7	5	1	7/1	1	100
St. Louis Children's Hospital[1]	St. Louis	A. F. Hartmann	3,446	30,000	125	72	23	7/1	2	10
St. Louis City Hospital*[1]	St. Louis	M. Carson and V. Hrdlicka	2,383	4,504	93	39	4	7/1	2	...
St. Mary's Group of Hospitals*[1]	St. Louis	P. G. Danis	1,829	12,262	38	22	12	7/1	2	35
Creighton Memorial St. Joseph's Hospital*	Omaha	J. H. Murphy	1,123	4,169	20	11	2	7/1	1	100
University of Nebraska Hospital*[1]	Omaha	H. M. Jahr	446	1,950	13	11	5	7/1	2	75
Mary Hitchcock Memorial Hospital*[1]	Hanover, N. H.	C. C. Stewart	784	4,986	26	23	1	7/1	1	150
Jersey City Hospital*[1]	Jersey City, N. J.	C. P. DeFuccio	2,391	9,734	39	18	7	Varies	2	35
Babies Hospital, Coit Memorial[1]	Newark, N. J.	M. G. Gregory	2,675	4,307	25	17	2	7/1	1	60
St. Michael's Hospital*	Newark, N. J.	H. A. Murray	2,613	5,655	37	31	6	7/1	2	75
Albany Hospital*[1]	Albany, N. Y.	O. A. Faust	879	2,534	39	26	4	7/1	2	41.66
Beth-El Hospital*[1]	Brooklyn	B. Schick	3,992	2,342	78	68	3	7/1	1	100
Brooklyn Hospital*[1]	Brooklyn	T. M. Lamb	482	6,151	18	14	2	7/1	1	25
Coney Island Hospital*[1]	Brooklyn	S. Nussbaum	1,676	2,965	41	32	2	7/1	1	80
Cumberland Hospital*[1]	Brooklyn	T. B. Givan	2,295	5,985	56	43	3	7/1	2	80
Greenpoint Hospital*[1]	Brooklyn	I. Schiff	648	5,509	27	21	3	7/1	1	130
Jewish Hospital*[1]	Brooklyn	B. Kramer	823	14,453	38	26	10	7/1	2	30
Kings County Hospital*[1]	Brooklyn	L. Krabolik and A. Serri	7,680	6,219	255	137	4	7/1	2	80
Long Island College Hospital*[1]	Brooklyn	C. A. Weymuller	697	9,019	26	16	4	7/1	2	50
Maimonides Hospital*[1]	Brooklyn	H. Wexler and M. Palinsky	1,177	1,481	25	16	2	7/1	2	75
Methodist Hospital*[1]	Brooklyn	W. F. Watton, Sr.	539	1,957	16	14	2	7/1	1	25
Norwegian Lutheran Deaconesses' Home and Hospital*[1]	Brooklyn	T. B. Givan and J. A. Monfort	2,445	1,900	15	17	2	7/1	1	50
St. Mary's Hospital*	Brooklyn	K. G. Jennings	462	1,679	9	5	1	7/1	1	100
Children's Hospital[1]	Buffalo	M. I. Rubin	1,774	.....	71	58	6	7/1	2	25
Edward J. Meyer Memorial Hospital*[1]	Buffalo	F. J. Gustina	1,424	12,391	42	20	3	7/1	1	100
†Mary Imogene Bassett Hospital*[1]	Cooperstown, N. Y.	T. C. Goodwin	253	5,668	5	2	1	7/1	2	83.33
Queens General Hospital*[1]	Jamaica, N. Y.	H. A. Reisman	3,086	4,146	116	87	4	7/1	2	...
Bellevue Hospital, Div. III—New York University*[1]	New York City	.....	.....	.....	..	..	..	....	..	...
Beth Israel Hospital*[1]	New York City	P. Cohen and J. M. Lewis	350	2,425	25	18	2	1/1, 7/1	1	50
Bronx Hospital*[1]	New York City	J. H. Lapin	2,857	3,155	11	8	..	7/1	2	75
Flower and Fifth Avenue Hospitals*[1]	New York City	L. Slobody	1,027	3,983	44	31	4	7/1	2	...
Fordham Hospital*[1]	New York City	J. Golomb	736	1,955	38	18	3	7/1	2	80
Harlem Hospital*[1]	New York City	M. Gleich	5,577	11,408	220	148	4	1/1, 7/1	2	80
Lenox Hill Hospital*[1]	New York City	H. Chardin	571	3,279	12	9	1	Varies	2	50
Lincoln Hospital*[1]	New York City	H. S. Altman	972	7,462	38	27	6	7/1	2	50
Metropolitan Hospital*[1]	New York City	L. B. Slobody	1,926	8,634	46	22	5	7/1	2	85
Morrisania City Hospital*[1]	New York City	L. H. Barenberg	980	3,665	27	9	3	7/1	2	80
Mount Sinai Hospital*	New York City	H. L. Hodes	1,462	22,898	57	42	5	7/1	2	50
New York City Hospital*[1]	New York City	E. E. Amerman	1,063	6,917	59	45	3	7/1	2	130
New York Foundling Hospital[1]	New York City	A. J. Vigner	585	4,058	2	2	4	1/1, 7/1	½	50
New York Hospital*[1]	New York City	S. Z. Levine	1,443	34,315	122	110	17	7/1	2	25
New York Infirmary*[1]	New York City	R. M. Bakwin	414	3,629	4	2	1	7/1	1	75
Presbyterian Hospital*[1,19]	New York City	R. McIntosh	4,397	32,988	116	..	16	1/1, 7/1	2	41.66
Roosevelt Hospital*[1]	New York City	A. T. Martin	647	2,569	11	9	1	7/1	1	25
†St. Clare's Hospital*[1]	New York City	C. H. O'Regan	2,229	6,255	41	29	2	7/1	1	25
St. Luke's Hospital*[1]	New York City	F. H. Wilke	604	8,090	17	14	4	1/1, 7/1	2	50
St. Vincent's Hospital*[1]	New York City	A. J. Vignec	876	8,699	23	16	2	7/1	2	50
University Hospital*[1]	New York City	A. De Sanctis	603	11,719	25	15	5	7/1	2	80
Genesee Hospital*[1]	Rochester, N. Y.	J. Glaser	672	1,017	11	10	1	7/1	3	30
†Rochester General Hospital*[1]	Rochester, N. Y.	F. W. Bush	560	2,426	14	13	2	7/1	1	55
Strong Memorial—Rochester Municipal Hospitals*[1]	Rochester, N. Y.	S. W. Clausen	1,472	9,613	50	42	9	7/1	2	41.66
St. Vincent's Hospital*	Staten Island, N. Y.	G. McCormick	3,353	950	39	21	1	7/1	1	100
Sea View Hospital[1]	Staten Island, N. Y.	B. Ratner	370	.....	2	..	5	7/1	1	120
Syracuse Memorial Hospital*	Syracuse, N. Y.	T. C. Wyatt	902	188	70	47	5	7/1	2	125
Grasslands Hospital*[1]	Valhalla, N. Y.	F. D. Barnes	595	2,130	21	16	3	7/1	2	125
Charlotte Memorial Hospital*[1]	Charlotte, N. C.	J. S. Hunt	1,518	4,046	56	40	2	7/1	1	60
Presbyterian Hospital	Charlotte, N. C.	R. Moore	826	248	6	2	1	7/1	1	95
Duke Hospital*[1]	Durham, N. C.	W. C. Davison	959	11,503	81	47	15	7/1	2	83.33
Watts Hospital*[1]	Durham, N. C.	A. H. London	920	2,278	20	9	1	7/1	2	50
Sternberger Hospital for Women and Children[1]	Greensboro, N. C.	A. Rubin	1,001	.....	17	7	1	1/1	1	40
Rex Hospital*[1]	Raleigh, N. C.	A. S. Root	1,033	1,097	22	7	1	7/1	1	150
Babies' Hospital[1]	Wilmington, N. C.	J. B. Sidbury	1,428	6,000	21	13	2	7/1	1	100
James Walker Memorial Hospital*[1]	Wilmington, N. C.	J. C. Knox	3,017	3,672	76	28	1	7/1	1	150
North Carolina Baptist Hospital*[1]	Winston-Salem, N. C.	L. J. Butler	1,810	2,873	72	50	5	7/1	2	41.66
Trinity Hospital*[1]	Minot, N. D.	R. E. Dyson	979	6,808	11	10	1	7/1	1	150
Children's Hospital[1]	Akron, Ohio	N. Miller	2,413	1,118	69	41	5	7/1	2	100
Children's Hospital[1]	Cincinnati	A. A. Weech	2,908	12,421	..	..	16	7/1	2	35
Cincinnati General Hospital*[1]	Cincinnati	A. A. Weech	1,513	10,287	85	56	16	7/1	2	...
University Hospitals*[1]	Cleveland	C. F. McKhann	2,610	18,316	131	..	10	7/1	2	25
Children's Hospital[1]	Columbus, Ohio	E. H. Baxter	2,479	8,461	172	123	11	1/1, 7/1	2	100
University Hospitals*[1]	Oklahoma City	C. H. Hall	2,374	7,385	95	43	4	7/1	2	35
Hillcrest Memorial Hospital*[1]	Tulsa, Okla.	H. Graham	1,671	.....	22	8	1	7/1	2	75

Numerical and other references will be found on page 1215.

18. PEDIATRICS—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Salary, Resident (Month)
St. John's Hospital[1]	Tulsa, Okla.		.....	.....	..	..	..	.....	1	....
University of Oregon Medical School Hospitals and Clinics[1]	Portland, Ore.	J. B. Bilderback	1,080	6,815	61	32	3	7/1	2	75
Abington Memorial Hospital[1]	Abington, Pa.	T. S. Wilder	378	276	11	8	2	7/1	1	50
Children's Hospital[1]	Philadelphia	J. Stokes, Jr.	1,875	13,902	85	72	34	.....	2	....
Children's Hospital of the Mary J. Drexel Home[1]	Philadelphia		1,273	11,095	8	8	2	7/1	1	50
Germantown Dispensary and Hospital[1]	Philadelphia	P. S. Barba	2,225	1,404	40	16	2	7/1	1	50
Graduate Hospital of the University of Pennsylvania*	Philadelphia	J. P. Scott and J. E. Ritter	552	944	11	6	2	7/1	1	....
Hahnemann Hospital[1]	Philadelphia	C. C. Fischer	918	6,624	39	31	4	9/1	2	50
Hospital of the University of Pennsylvania[1]	Philadelphia	J. Stokes, Jr.	475	5,329	45	42	6	Varies	2	....
Hospital of the Woman's Medical College of Pennsylvania[1]	Philadelphia	E. P. Bacon	265	.....	6	5	2	7/1	2	60
Jefferson Medical College Hospital[1]	Philadelphia	E. J. Bauer	770	12,527	55	40	2	.....	2	....
Jewish Hospital[1]	Philadelphia		710	.....	18	11	2	7/1	1	50
Mount Sinai Hospital[1]	Philadelphia	E. Rush and I. P. Morris	1,057	2,232	28	20	1	7/1	1	50
Philadelphia General Hospital[1]	Philadelphia	J. W. Cleland	1,757	4,548	124	64	5	7/1	2	75
St. Luke's and Children's Medical Center[1]	Philadelphia	J. L. Redman	1,496	4,796	16	11	2	6/1, 12/1	1	50
Temple University Hospital[1,33]	Philadelphia	W. E. Nelson	626	7,173	21	15	7	7/1	..	50
Pittsburgh Medical Center[1,29]	Pittsburgh	E. R. McCluskey	5,720	31,870	147	91	15	7/1	2	41.66
†Western Pennsylvania Hospital[1]	Pittsburgh	H. C. Flood and C. Ricker	802	1,052	10	8	1	7/1	1	100
Robert Packer Hospital*	Sayre, Pa.	J. M. Higgins	1,035	1,460	7	8	1	7/1	2	150
Charles V. Chapin Hospital[1]	Providence, R. I.	H. G. Calder	1,533	809	16	12	5	Varies	1	50
Rhode Island Hospital[1,31]	Providence, R. I.	W. P. Buffum	1,212	4,011	76	19	3	7/1	2	50
Roper Hospital[1]	Charleston, S. C.	M. W. Beach	1,018	7,764	51	26	5	7/1	1	50
Columbia Hospital[1]	Columbia, S. C.	T. D. Dotterer	1,044	4,117	50	20	2	7/1	2	75
T. C. Thompson Children's Hospital	Chattanooga, Tenn.	J. W. Hooker	2,290	11,840	146	39	3	7/1	1	90
Knoxville General Hospital[1]	Knoxville, Tenn.	H. S. Christian	2,023	706	103	24	1	7/1	1	100
Baptist Memorial Hospital[1]	Memphis, Tenn.	W. L. Rucks	1,485	583	89	40	1	7/1	1	75
John Gaston Hospital[1]	Memphis, Tenn.	F. T. Mitchell	1,785	7,407	67	41	6	7/1	2	....
Methodist Hospital[1]	Memphis, Tenn.	C. V. Croswell	1,319	704	47	17	2	7/1	2	75
St. Joseph Hospital[1]	Memphis, Tenn.	H. J. Jacobson	1,300	.....	8	2	2	7/1	2	100
George W. Hubbard Hospital of Meharry Medical College*	Nashville, Tenn.	E. P. Crump	740	8,860	76	42	3	7/1	2	100
St. Thomas Hospital[1]	Nashville, Tenn.	J. C. Overall	2,806	.....	29	14	1	7/1	1	150
Vanderbilt University Hospital[1]	Nashville, Tenn.	A. Christie	1,033	9,102	82	52	5	7/1	2	83.41
Children's Medical Center[1]	Dallas, Texas	J. Young and R. Moore	2,747	33,241	65	29	13	7/1	2	50
University of Texas Medical Branch Hospitals[1] John Sealy Hospital*	Galveston, Texas	A. E. Hansen	1,840	8,067	85	55	11	1/1, 7/1	2	50
†Hermann Hospital[1]	Houston, Texas	R. J. Blattner	630	3,325	72	45	5	.....	1	50
Jefferson Davis Hospital*	Houston, Texas	R. Blattner	3,867	19,145	175	66	4	7/1	1	25
Santa Rosa Hospital*	San Antonio, Texas	S. R. Kalkstein	1,931	3,940	125	70	2	7/1	1	110
Salt Lake County General Hospital[1]	Salt Lake City	J. Rosana	1,514	2,866	40	31	6	.....	2	....
Mary Fletcher Hospital*	Burlington, Vt.	A. S. Corbin	555	6	12	9	1	7/1	2	50
University of Virginia Hospital[1]	Charlottesville, Va.	W. W. Waddell	697	5,051	70	40	6	.....	2	67
Medical College of Virginia, Hospital Division*	Richmond, Va.	L. E. Sutton	1,433	8,215	68	40	9	.....	2	....
Children's Orthopedic Hospital[1]	Seattle	J. I. Durand	851	2,354	15	14	3	7/1	1	50
King County Hospital, Unit No. 1 (Harborview)[1]	Seattle	W. B. Seelye	2,940	2,345	58	41	2	7/1	2	50
State of Wisconsin General Hospital[1]	Madison, Wis.	J. F. Gober, Jr.	782	3,361	30	23	3	1/1, 7/1	2	25
Milwaukee Children's Hospital[1]	Milwaukee	F. R. Janney	3,067	30,539	80	54	8	7/1	2	75
Milwaukee County Hospital[1]	Milwaukee	W. S. Polacheck	2,251	5,103	24	8	5	7/1	2	172.50
Kauikeolani Children's Hospital[1]	Honolulu, Hawaii	T. Yoshina	3,287	7,332	50	36	4	4/1	1	150
Bayamon District Hospital[1]	Bayamon, Puerto Rico	J. Basora	1,554	240	173	71	1	7/1	1	250

19. PHYSICAL MEDICINE

The following services are approved by the Council and the American Board of Physical Medicine. Residencies in this specialty have been approved without specifying the number of years for which they are accredited. The Board will give appropriate credit for training in these hospitals on an individual basis.

Hospitals, 42 Assistant Residencies and Residencies, 55

Name of Hospital	Location	Chief of Service	Inpatients Treated	Number of Treatments	Asst., Res. and Residencies Offered*	Beginning of Service (1950)	Beginning Salary, Resident (Month)
United States Army							
Letterman General Hospital*	San Francisco	A. E. White	21,861	185,112	2	1/1, 7/1	0
†Fitzsimmons General Hospital*	Denver	H. B. Luskombe	21,060	281,585	4	.....	0
Army Medical Center*	Washington, D. C.	E. M. Smith	8,676	134,137	6	7/1	0
Veterans Administration							
†Veterans Admin. Hospital[1]	Ft. Logan, Colo.	F. J. Pricke	4,610	58,879	1	.....	0
Veterans Admin. Hospital	Chamblee, Ga.	G. D. Williams	4,923	39,181	1	7/1	0
Veterans Admin. Hospital	Hines, Ill.	L. B. Newman	20,652	472,850	2	1/1, 7/1	0
Veterans Admin. Hospital	New Orleans	S. Winokur	1,167	46,615	1	7/1	0
Veterans Admin. Hospital[1]	Framingham, Mass.	F. Pritchard	9,000	24,000	2	7/1	0
Veterans Admin. Hospital[1]	Jefferson Bks., Mo.	S. Mead	4,046	53,920	2	7/1	0
†Veterans Admin. Hospital[1]	New York City	K. Harpender	12,613	279,817	3	1/1, 7/1	0
Veterans Admin. Hospital[1]	Cleveland	H. T. Zankel	2,432	105,040	2	7/1	0
†Veterans Admin. Hospital	Aspinwall, Pa.	S. Macheber	1,860	62,792	1	7/1	0
†Veterans Admin. Hospital	Portland, Ore.	E. W. Fowlks	4,905	96,700	1	1/1, 7/1	0
Semifederal							
Los Angeles County Hospital[1]	Los Angeles	O. L. Huddleston	.....	133,694	1	Varies	165
White Memorial Hospital*	Los Angeles	F. B. Moor	31,056	.....	..	.....	150

Numerical and other references will be found on page 1215.

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19. PHYSICAL MEDICINE—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Number of Treatments	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Beginning Stipend (Month)
Stanford University Hospitals[61]	San Francisco	W. H. Northway	.....	6,833	..	7/1	50
University of Colorado Medical Center							
Colorado General Hospital[62]	Denver	H. L. Dinken	2,222	25,068	1	7/1	75
†Emory University Hospital[63]	Emory University, Ga.	R. L. Bennett	9,848	30,268	1	7/1	50
†Georgia Warm Springs Foundation	Warm Springs, Ga.		800	1,708	2	.....	...
Cook County Hospital[61]	Chicago	D. Kobak	3,857	35,282	..	1/1, 7/1	...
Michael Reese Hospital[61]	Chicago	C. O. Molander	1,607	19,443	1	Varies	25
Northwestern University Medical School	Chicago		12,284	34,813	..	.....	...
University of Kansas Medical Center[6]	Kansas City, Kan.	D. L. Rose	11,694	31,838	1	7/1	100
†Massachusetts General Hospital[6]	Boston		.....	.....	..	.....	...
University of Minnesota Hospitals[61]	Minneapolis	M. Knapp	15,391	21,885	4	.....	105
Mayo Foundation	Rochester, Minn.	F. H. Krusen	.....	.....	9	Varies	92.50
Barnes Hospital[6]	St. Louis		820	10,951	..	7/1	25
†Bellevue Hospital, Div. III—							
New York University[6]	New York City		.....	.....	..	.....	...
Goldwater Memorial Hospital[61]	New York City		2,700	124,257	..	.....	...
Hospital for Joint Diseases[61]	New York City	J. Weiss	76,079	95,608	1	7/1	40
Hospital for Special Surgery	New York City	K. G. Hansson	.....	41,111	..	.....	...
Montefiore Hospital for Chronic Diseases[61]	New York City	R. Harpuder	.....	.....	..	.....	...
Mount Sinai Hospital[6]	New York City	W. Bierman	.....	.....	..	7/1	50
New York City Hospital[61]	New York City	F. K. Safford, Jr.	955	26,419	..	.....	...
†Presbyterian Hospital[61]	New York City	W. B. Snow	70,405	191,021	2	1/1	41.66
St. Luke's Hospital[6]	New York City	R. Muller	1,302	136,904	1	7/1	50
†Rehabilitation Hospital[6]	W. Haverstraw, N. Y.	M. Hoberman	322	291,115	1	.....	200
Cleveland Clinic Hospital[6]	Cleveland	S. G. Gamble	17,885	17,884	1	7/1	125
Hospital of the University of Pennsylvania[61]	Philadelphia	G. M. Piersol	1,206	15,575	1	Varies	100
Philadelphia General Hospital[61]	Philadelphia		3,073	21,760	..	.....	...
Medical College of Virginia, Hospital Division[61]	Richmond, Va.	F. A. Hellebrandt	3,787	34,000	..	.....	...
State of Wisconsin General Hospital[61]	Madison, Wis.	H. D. Bowman	3,783	45,840	..	.....	...

20. PLASTIC SURGERY

The following services are approved by the Council and the American Board of Plastic Surgery. Residencies in this specialty have been approved without specifying the number of years for which they are accredited. The Board will give appropriate credit for training in these hospitals on an individual basis.

Hospitals, 22 Assistant Residencies and Residencies, 39

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Beginning Stipend (Month)
Veterans Administration									
Veterans Admin. Hospital	Hines, Ill.	P. Greeley	582	.....	6	..	1	1/1, 7/1	n
Veterans Admin. Hospital[1]	New York City	H. Conway	503	408	3	2	4	1/1, 7/1	n
Veterans Admin. Hospital	Aspinwall, Pa.	W. L. White	408	.....	2	1	1	7/1	n
Veterans Admin. Center[1]	White River Jct., Vt.	R. C. Tanzer	111	.....	..	..	1	7/1	n
Nonfederal									
Franklin Hospital[61]	San Francisco	H. M. Blackfield	462	.....	1	1	1	7/1	100
†University of Kansas Medical Center[6]	Kansas City, Kan.	D. W. Robinson	330	.....	7	6	1	7/1	100
Charity Hospital of Louisiana[61]	New Orleans	N. Owens & W. R. Metz	.....	5,482	..	..	2	7/1	25
Mayo Foundation	Rochester, Minn.	G. B. New	.....	.....	1	..	6	.....	92.50
Barnes Hospital[6]	St. Louis	J. B. Brown	884	.....	..	..	1	7/1	25
Hospital of St. Barnabas and for Women and Children[61]	Newark, N. J.	L. A. Pwer	716	568	..	..	2	1/1	...
Albany Hospital[61]	Albany, N. Y.	R. R. Maromler	383	300	1	1	1	7/1	41.66
Kings County Hospital[61]	Brooklyn	W. Coakley	1,200	2,000	30	5	2	7/1	80
New York Hospital[61]	New York City	H. Conway	161	.....	1	..	1	7/1	25
Presbyterian Hospital[61]	New York City	J. P. Webster	414	3,608	..	..	4	1/1, 7/1	100
Strong Memorial Rochester Municipal Hospitals[61]	Rochester, N. Y.	F. O. J. Young	260	412	..	..	1	7/1	41.66
†University Hospitals[6]	Oklahoma City	J. F. Burton	219	750	5	2	1	7/1	35
Allentown Hospital[6]	Allentown, Pa.		351	321	..	..	1	.....	...
Graduate Hospital of the University of Pennsylvania[6]	Philadelphia	R. H. Ivy	179	21	..	..	1	7/1	...
†Jefferson Medical College Hospital	Philadelphia	T. A. Shallow	306	167	1	1	2	.....	...
Pittsburgh Medical Center[61,62]	Pittsburgh		.....	.....	..	..	..	.....	...
University of Texas Medical Branch Hospitals	Galveston, Texas	T. G. Blocker	684	1,436	11	5	3	7/1	75
†State of Wisconsin General Hospital[61]	Madison, Wis.	W. Slaughter	381	.....	2	1	2	1/1, 7/1	25

21. PREVENTIVE MEDICINE AND PUBLIC HEALTH

Standards are being prepared for the evaluation of residency training in public health. A preliminary list of approved facilities will be published in the 1951 Internship and Residency Number.

22. PROCTOLOGY

The following services are approved by the Council and the American Board of Proctology. Residencies in this specialty have been approved without specifying the number of years for which they are accredited. The Board will give appropriate credit for training in these hospitals on an individual basis.

Hospitals, 10 Assistant Residencies and Residencies, 18

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Beginning Stipend (Month)
Nonfederal									
Mercy Hospital-Loyola University Clinics[61]	Chicago	C. L. Martin	234	516	..	..	1	7/1	25
Mayo Foundation	Rochester, Minn.	L. A. Buie	.....	.....	..	..	6	.....	92.50
Millard Fillmore Hospital[6]	Buffalo	H. C. Gurss	375	5	1	..	1	7/1	50
Youngstown Hospital[61]	Youngstown, Ohio	P. J. Fuzy	419	50	7	2	1	7/1	75

Numerical and other references will be found on page 1215.

22. PROCTOLOGY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
Allentown Hospital[a]	Allentown, Pa.	M. Kleckner	820	114	4	2	1	7/1	100
†Jefferson Medical College Hospital	Philadelphia	T. A. Shallow	537	2,804	4	1	1	.....	...
Temple University Hospital[a]	Philadelphia	H. E. Bacon	984	1,019	12	6	3	7/1	50
Pittsburgh Medical Center[a,19]	Pittsburgh	K. Zimmerman	294	505	...	...	..	7/1	41.67
Reading Hospital[a]	Reading, Pa.	F. G. Runyeon	808	345	7	4	2	7/1	100
†Milwaukee County Hospital[a,1]	Milwaukee	A. G. Schutte	288	960	17	10	3	7/1	115.38

23. PSYCHIATRY

The following services are approved by the Council and the American Board of Psychiatry and Neurology.
Hospitals, 231 Assistant Residencies and Residencies, 1,754

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered *	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
United States Army										
Letterman General Hospital[a]	San Francisco	E. B. Litteral	1,902	3,636	...	...	20	1/1, 7/1	3	n
†Fitzsimmons General Hospital[a]	Denver	D. B. Peterson	1,462	184	...	...	15	1/1, 7/1	3	n
Army Medical Center[a,15]	Washington, D. C.	E. R. Inwood	2,985	2,624	...	...	39	7/1	3	n
United States Navy										
U. S. Naval Hospital[a,2]	Bethesda, Md.	G. N. Raines	1,414	290	7	6	8	Varies	3	n
U. S. Naval Hospital[a,7]	Philadelphia	F. F. Wildebush	.....	.....	...	...	..	1/1, 7/1	3	n
United States Public Health Service										
U. S. Public Health Service Hospital [1]	Lexington, Ky.	M. A. Diamond	3,856	.....	21	18	10	7/1	3	n
U. S. Marine Hospital [1]	New York City	J. L. Baker	2,499	632	13	4	9	7/1	3	n
U. S. Public Health Service Hospital [1]	Fort Worth, Texas	E. W. Green	2,664	.....	20	9	11	7/1	3	n
Federal Security Agency										
St. Elizabeth's Hospital[a,1]	Washington, D. C.	W. Overholser	8,024	.....	446	305	21	7/1	3	n
Veterans Administration										
Veterans Admin. Hospital [1]	N. Little Rock, Ark.	E. S. Chappell	5,041	.....	137	104	3	7/1	3	n
Veterans Admin. Center[2]	Los Angeles		2,838	.....	152	94	34	1/1, 7/1	3	n
Veterans Admin. Hospital [1]	Palo Alto, Calif.	J. J. Prusmack	2,200	6,077	40	23	40	1/1, 7/1	3	n
†Veterans Admin. Hospital[2]	Van Nuys, Calif.	J. Jacobs	252	220	10	9	..	1/1, 7/1	3	n
†Veterans Admin. Hospital [1,23]	Fort Lyon, Colo.	W. M. Gysin	1,177	.....	1	...	9	1/1, 7/1	3	n
†Veterans Admin. Hospital [1]	Augusta, Ga.	W. V. Walsh	1,410	2,733	29	14	1	1/1, 7/1	3	n
†Veterans Admin. Hospital [1]	Downey, Ill.	A. Rodriguez	2,512	.....	33	30	9	1/1	3	n
Veterans Admin. Hospital [1]	Hines, Ill.	F. G. Gerty	345	.....	21	10	10	1/1, 7/1	3	n
†Veterans Admin. Hospital [1]	Knoxville, Iowa	W. W. Bourke	1,900	276	42	29	1	Varies	2	n
Veterans Admin. Hospital [1]	Topeka, Kan.	E. Feldman	2,377	.....	24	17	86	7/1	3	n
Veterans Admin. Hospital [1]	Lexington, Ky.	F. W. Straus	1,100	.....	42	23	4	4/1, 7/1	3	n
Veterans Admin. Hospital [1,13]	Louisville, Ky.	D. F. Moore	658	1,571	11	3	6	.....	3	n
Veterans Admin. Hospital [1]	New Orleans	H. T. Posey	406	264	4	4	2	7/1	3	n
Veterans Admin. Hospital [1]	Perry Point, Md.	W. G. Reese	2,585	.....	76	44	31	7/1	3	n
Veterans Admin. Hospital [1]	Bedford, Mass.	J. L. Hoffman	1,871	.....	55	25	22	1/1, 7/1	1	n
Veterans Admin. Hospital (West Roxbury)	Boston	S. Tartakoff	339	92	15	9	..	1/1, 7/1	1	n
†Veterans Admin. Hospital [1]	Framingham, Mass.	W. Bloomberg	852	.....	4	3	22	7/1	3	n
†Veterans Admin. Hospital [1]	Fort Custer, Mich.	A. L. Olsen	2,712	.....	81	60	9	1/1, 7/1	3	n
†Veterans Admin. Hospital [1]	Gulfport, Miss.	J. J. Biasko	976	.....	43	34	8	7/1	3	n
Veterans Admin. Hospital [1]	Jefferson Bks., Mo.	A. K. Baur	490	.....	11	7	8	7/1	3	n
†Veterans Admin. Hospital [1]	Lyons, N. J.	A. Pannca	2,669	.....	72	55	16	7/1	3	n
Veterans Admin. Hospital [1]	Canandaigua, N. Y.	E. M. Levy	1,998	1,643	57	57	4	7/1	3	n
Veterans Admin. Hospital [1]	New York City	T. A. C. Rennie	687	6,964	5	3	26	1/1, 7/1	3	n
†Veterans Admin. Hospital [1]	Northport, N. Y.	.....	.....	.....	...	...	20	7/1	..	n
Veterans Admin. Hospital [1]	Cleveland	L. Halle	718	557	2	1	12	7/1	3	n
†Veterans Admin. Hospital [1]	Coatesville, Pa.	A. O. Hecker	.....	.....	...	...	40	7/1	3	n
†Veterans Admin. Hospital [1]	Memphis, Tenn.	E. Schmidbofer	738	1,340	7	4	3	7/1	3	n
Veterans Admin. Hospital [1]	Waco, Texas	W. L. Ford	3,206	.....	87	50	8	1/1, 7/1	2	n
†Veterans Admin. Hosp tal [1]	Richmond, Va.	B. Nagler	787	.....	1	1	4	7/1	3	n
†Veterans Admin. Hospital [1]	Roanoke, Va.		3,017	.....	84	53	13	7/1	3	n
Veterans Admin. Hospital [1]	Tomah, Wis.	N. C. Mare	944	1,354	44	21	9	1/1	3	n
Nonfederal										
Jefferson-Hillman Hospital[a,2]	Birmingham, Ala.	F. A. Kay	524	860	2	...	2	7/1	1	50
Herrick Memorial Hospital[a,2]	Berkeley, Calif.	A. E. Bennett	226	243	1	1	2	7/1	1	50
Compton Sanitarium [1]	Compton, Calif.	G. E. Myers	530	.....	2	...	4	7/1	2	250
Napa State Hospital [1]	Imola, Calif.	W. A. Oliver	5,400	630	397	70	2	1/1	1	255
Livermore Sanitarium [1]	Livermore, Calif.	O. B. Jensen	733	500	8	1	...	7/1	1	300
Los Angeles County Hospital[a,1]	Los Angeles	M. G. Carter	7,596	307	117	94	2	Varies	3	165
Patton State Hospital [1]	Patton, Calif.	O. L. Gericke	3,900	.....	444	96	1	.....	1	255
Langley Porter Clinic Hospital [1]	San Francisco	K. M. Bowman	290	14,119	3	2	37	1/1, 7/1	3	255
Mount Zion Hospital[a]	San Francisco	M. Reider	7	5,591	...	...	2	1/1, 7/1	2	50
Stanford University Hospitals[a,1,7]	San Francisco	G. S. Johnson	.....	.....	...	...	...	.....	...	...
University of California Hospital[a,21]	San Francisco	K. M. Bowman	.....	3,158	...	...	1	8/1	3	75
Pasadena Sanitarium	S. Pasadena, Calif.	C. H. Godard	625	900	5	1	1	10/1	1	250
Pacific Colony [1]	Spadra, Calif.	G. Turjan	2,857	94	74	54	3	7/1	1	255
University of Colorado Medical Center Colorado Psychopathic Hospital	Denver	F. C. Ebaugh	1,612	7,609	18	11	35	7/1	3	125
Colorado State Hospital [1]	Pueblo, Colo.	J. L. Rosenbloom	1,107	.....	454	222	12	7/1	2	275
Institute of Living (Neuro-psychiatric Institute of the Hartford Retreat) [1]	Hartford, Conn.	C. C. Burlingame	1,224	.....	10	2	10	.....	3	275
Connecticut State Hospital [1]	Middletown, Conn.	B. Simon	3,071	2,075	278	73	3	.....	2	235
†Silver Hill Foundation	New Canaan, Conn.	W. B. Terhune	294	224	...	...	1	.....	1	400
Grase-New Haven Community Hospital New Haven Unit (University Service)[a,1]	New Haven, Conn.	F. Redlich	356	2,518	3	2	6	7/1	3	40
Fairfield State Hospital [1]	Newton, Conn.	J. E. Ohlman	3,414	25	257	193	5	Varies	3	235
Norwich State Hospital [1]	Norwich, Conn.	M. C. Taylor	3,366	251	363	69	6	Varies	3	235
Delaware State Hospital [1]	Farnhurst, Del.	M. A. Tarumianz	1,273	3,567	100	33	6	.....	2	125

Numerical and other references will be found on page 1215.

23. PSYCHIATRY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Gallinger Municipal Hospital*[1]	Washington, D. C.	G. J. Gordon	3,800	.....	47	12	13	7/1	1	100
Georgetown University Hospital*	Washington, D. C.	....	.....	.....	...	...	..	....	2	...
†George Washington University Hospital*[1]	Washington, D. C.	W. Overholser	554	605	1	...	..	....	..	...
Duval Medical Center*	Jacksonville, Fla.	S. G. Bedell	449	.....	6	3	..	7/1	1	125
University Hospital*	Augusta, Ga.	H. M. Cleckley	263	895	1	...	2	7/1	2	40
†Alton State Hospital [1]	Alton, Ill.	A. Simon	1,853	312	239	31	2	1/1	1	200
†Anna State Hospital [1]	Anna, Ill.	C. D. Nobles	2,921	244	301	24	..	....	1	...
Chicago State Hospital [1]	Chicago	I. Spinka	7,135	2,955	701	129	8	7/1	2	200
Cook County Hospital*[1]	Chicago	C. A. Neyman	10,219	.....	224	15	4	1/1, 7/1	3	125
Illinois Neuropsychiatric Institution*[1]	Chicago	F. J. Gerty	281	6,796	...	...	7	7/1	3	55
Loretto Hospital*	Chicago	J. J. Madden	508	1,289	2	2	2	7/1	1	200
Mercy Hospital*[1]	Chicago	....	.....	.....	...	...	..	....	..	...
Michael Reese Hospital*[1]	Chicago	R. R. Grinker	274	5,906	1	...	12	10/1	3	...
St. Luke's Hospital*[1,7]	Chicago	....	.....	.....	...	...	..	7/1	1	25
University of Chicago Clinics*[1]	Chicago	H. Brosin	169	7,353	...	...	9	7/1	3	109
Veterans Rehabilitation Center	Chicago	D. Slight	127	12,346	...	...	7	7/1	1	200
Wesley Memorial Hospital*[1]	Chicago	T. T. Stone	585	.....	1	...	1	7/1	1	25
†Dixon State Hospital [1]	Dixon, Ill.	C. K. Bush	4,056	100	158	29	1	Varies	1	200
Elgin State Hospital [1]	Elgin, Ill.	E. Liebert	8,613	2,605	534	180	18	Varies	3	200
†Kankakee State Hospital [1]	Kankakee, Ill.	G. M. Cowan	1,670	1,035	208	136	4	....	1	200
†Lincoln State School and Colony [1]	Lincoln, Ill.	W. W. Fox	4,701	.....	87	18	3	9/1	1	150
Manteno State Hospital [1]	Manteno, Ill.	M. Wallenberg	2,606	1,903	610	32	6	....	2	200
Peoria State Hospital [1]	Peoria, Ill.	W. H. Baer	2,617	.....	263	60	3	1/1, 7/1	2	200
North Shore Health Resort [1]	Winnetka, Ill.	S. Liebman	287	338	10	6	2	Varies	1	...
Central State Hospital	Indianapolis	J. V. Coin	25	6	...	...	3	1/1	2	375
Indianapolis General Hospital*[1]	Indianapolis	E. W. Mericle	798	1,471	29	14	3	7/1	3	80
Norways Sanatorium [1]	Indianapolis	....	492	1,000	9	...	2	1/1, 7/1	2	200
Logansport State Hospital [1]	Logansport, Ind.	J. A. Larson	2,274	.....	166	29	..	....	2	...
Cherokee State Hospital [1]	Cherokee, Iowa	W. C. Brinegar	1,632	.....	146	54	2	7/1	1	291.65
Iowa State Psychopathic Hospital [1]	Iowa City	W. R. Miller	373	2,402	...	...	8	7/1	3	150
Menninger Sanitarium [1]	Topeka, Kan.	L. L. Robbins	170	24,632	...	...	3	1/1, 7/1	3	275
Louisville General Hospital*[1]	Louisville, Ky.	S. S. Ackerly	640	2,228	5	3	2	7/1	2	45
Charity Hospital of Louisiana*[1]	New Orleans	....	779	10,102	29	7	3	7/1	3	25
De Paul Sanitarium*[1]	New Orleans	J. W. Bick	1,954	168	13	4	2	....	3	300
Johns Hopkins Hospital*	Baltimore	J. C. Whitehorn	258	4,521	1	1	11	7/1	3	41.66
†Seton Institute [1]	Baltimore	D. Ross	617	100	14	5	9	7/1	2	125
Spring Grove State Hospital	Catonsville, Md.	I. Tuerk	3,309	63	151	37	17	7/1	2	350
†Chestnut Lodge Sanitarium [1]	Rockville, Md.	D. M. Bullard	123	330	2	1	6	7/1	2	175
Springfield State Hospital [1]	Sykesville, Md.	M. V. Beyer	3,715	2,338	187	32	5	7/1	2	100
Sheppard and Enoch Pratt Hospital [1]	Towson, Md.	H. M. Murdock	423	87	9	4	6	7/1	2	150
Beth Israel Hospital*[1]	Boston	G. Bibring	226	2,061	...	...	1	10/1	1	300
Boston Psychopathic Hospital [1]	Boston	H. C. Solomon	1,255	8,540	8	4	12	....	3	170
Boston State Hospital [1]	Boston	E. V. Semrad	4,459	.....	378	93	5	7/1	2	180
Massachusetts General Hospital*	Boston	....	.....	.....	...	...	..	....	2	...
†New England Center Hospital [1]	Boston	R. D. Adams	1,114	349	...	...	2	7/1	1	83.33
†Peter Bent Brigham Hospital*	Boston	H. M. Fox	.....	.....	280	...	3	7/1	1	...
Foxboro State Hospital [1]	Foxboro, Mass.	....	.....	.....	...	...	2	....	2	...
Danvers State Hospital [1]	Hawthorne, Mass.	P. B. Hagopian	3,343	.....	272	49	2	Varies	2	200
Medfield State Hospital [1]	Medfield, Mass.	T. F. Lindberg	1,096	245	135	26	4	....	2	200
Monson State Hospital	Palmer, Mass.	W. A. Hunter	1,?67	?70	45	...	2	....	1	...
†Austen Riggs Foundation [1]	Stockbridge, Mass.	R. P. Knight	175	2,300	...	...	3	7/1	2	400
Taunton State Hospital [1]	Taunton, Mass.	B. E. Zawacki	2,0?0	.....	252	50	3	Varies	2	200
Metropolitan State Hospital [1]	Waltham, Mass.	B. Riggs and M. Asekoff	2,000	.....	116	30	2	....	3	200
McLean Hospital [1]	Waverley, Mass.	P. M. Howard	443	.....	14	10	7	1/1, 7/1	2	75
Westboro State Hospital [1]	Westboro, Mass.	R. V. Hadley	2,301	730	180	15	2	Varies	2	...
Worcester City Hospital*[1]	Worcester, Mass.	F. L. Vibber	805	539	110	13	1	7/1	1	100
Worcester State Hospital [1]	Worcester, Mass.	D. Rothschild	3,700	550	261	73	17	Varies	3	...
University Hospital*[1]	Ann Arbor, Mich.	R. W. Waggoner	348	5,383	1	1	32	7/1	3	130.00
†St. Joseph's Retreat	Dearborn, Mich.	M. H. Hoffmann	1,364	416	18	6	2	7/1	1	300
City of Detroit Receiving Hospital*[1]	Detroit	T. V. Hoagland	7,284	.....	90	56	7	7/1	3	180.08
Henry Ford Hospital*[1]	Detroit	T. J. Heldt	778	9,294	26	10	1	7/1	2	200
Wayne County General Hosp. and Infirmary*[1]	Eloise, Mich.	L. S. Lipschutz	5,158	8,506	322	169	7	1/1, 7/1	3	235
Kalamazoo State Hospital [1]	Kalamazoo, Mich.	C. M. Schrier	3,844	.....	273	4	17	7/1	2	415
Pontiac State Hospital [1]	Pontiac, Mich.	P. V. Wagley	3,166	135	220	93	14	Varies	2	335
Traverse City State Hospital [1]	Traverse City, Mich.	R. P. Sheets	2,819	1,837	242	80	8	....	2	335
Ypsilanti State Hospital [1]	Ypsilanti, Mich.	O. R. Yoder	4,607	1,382	280	73	16	....	2	335
University of Minnesota Hospitals*[1,10]	Minneapolis	D. W. Hastings	1,014	6,946	2	2	24	7/1	3	...
Mayo Foundation	Rochester, Minn.	F. J. Braceland	.....	.....	...	...	..	....	3	92.50
†Rochester State Hospital	Rochester, Minn.	M. C. Petersen	2,493	.....	170	52	4	....	1	300
State Hospital No. 1	Fulton, Mo.	W. J. Cremer	2,550	75	201	36	1	7/1	2	150
Kansas City General Hospital No. 1*	Kansas City, Mo.	M. L. Bills	590	3,007	12	7	1	7/1	1	50
State Hospital No. 2	St. Joseph, Mo.	O. Mullinax	2,455	208	203	46	6	1/1	2	100
Barnes Hospital*[1]	St. Louis	E. F. Gildea	391	8,203	4	2	18	7/1	3	25
Homer G. Philips Hospital*[1,7]	St. Louis	E. F. Gildea	.....	.....	...	...	..	....	2	98
St. Louis City Hospital*[1]	St. Louis	E. Gildea and R. E. Britt	1,611	1,258	87	28	5	7/1	3	...
St. Louis State Hospital [1]	St. Louis	L. H. Kohler	3,787	.....	181	51	13	7/1	2	200
Hastings State Hospital [1]	Ingleside, Neb.	J. C. Nielsen	1,909	180	118	26	6	7/1	2	300
Norfolk State Hospital [1]	Norfolk, Neb.	G. L. Sandritter	1,397	1,240	73	22	1	....	2	300
Lutheran Hospital [1]	Omaha	R. Young	1,051	.....	6	1	2	1/1	2	150
University of Nebraska Hospital*[1]	Omaha	R. H. Young	236	706	...	...	5	7/1	3	75
New Hampshire State Hospital [1]	Concord, N. H.	J. L. Smalldon	3,518	254	331	55	2	1/1	2	135.75
Essex County Overbrook Hospital [1]	Cedar Grove, N. J.	S. W. Hamilton	3,386	321	275	77	9	....	2	208.33
New Jersey State Hospital [1]	Greystone Park, N. J.	M. A. Curry	7,509	1,432	519	...	11	7/1	2	375
New Jersey State Hospital [1]	Marlboro, N. J.	J. B. Gordon	4,301	1,910	281	119	1	....	2	130
New Jersey State Hospital	Trenton, N. J.	H. S. Magee	5,239	.....	256	73	6	7/1	2	375
Albany Hospital*[1]	Albany, N. Y.	S. E. Barrera	1,478	1,038	36	21	4	7/1	3	41.66
†South Oaks, Long Island Home [1]	Amityville, N. Y.	M. S. Titley	100	.....	20	...	1	7/1, 9/1	1	150
†Craig House [1]	Beacon, N. Y.	C. L. Bennett	47	60	1	...	1	7/1	1	200
†Mattewan State Hospital	Beacon, N. Y.	J. F. McNeill	1,679	.....	50	14	1	4/1	1	290
Hillside Hospital [1]	Bellerose, N. Y.	J. S. A. Miller	310	.....	3	...	12	....	2	150
Binghamton State Hospital [1]	Binghamton, N. Y.	H. S. Gregory	2,725	1,194	228	74	3	....	2	300
Brooklyn State Hospital [1]	Brooklyn	C. H. Bellinger	3,421	761	580	32	12	....	3	304
Kings County Hospital*[1]	Brooklyn	S. Parker	11,386	5,972	264	16	30	7/1	3	130
Buffalo State Hospital [1]	Buffalo	C. Fletcher	3,159	15	274	82	3	....	2	250
Edward J. Meyer Memorial Hospital*[1]	Buffalo	A. L. C. Ulrich	1,980	1,922	45	14	7	7/1	2	100
Central Islip State Hospital [1]	Central Islip, N. Y.	D. Corcoran	9,358	3,328	507	131	7	7/1	3	304.16
Gowanda State Homeopathic Hospital [1]	Helmuth, N. Y.	R. W. Bohn	3,828	1,567	236	40	6	....	2	300

Numerical and other references will be found on page 1215.

23. PSYCHIATRY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Salary (Month)
†Pinewood Sanitarium[1]	Katonah, N. Y.	L. Wender	270	.....	2	...	1	7/15	1	175
Kings Park State Hospital[1]	Kings Park, N. Y.	A. E. Soper	9,507	5,086	485	87	10	.....	2	304.17
†River Crest Sanitarium	Long Island City, N. Y.	J. C. Kindred	93	1,372	13	...	2	9/1	1	250
Marcy State Hospital[1]	Marcy, N. Y.	N. D. Black	3,342	99	260	30	9	.....	2	304.18
Middletown State Homeopathic Hospital[1]	Middletown, N. Y.	W. A. Schmitz	3,808	897	222	61	5	7/1	2	304
Bellevue Hosp., Div. III—New York Univ.[2]	New York City	.....	...	...	...	...	...	...	3	...
Manhattan State Hospital[1]	New York City	N. E. Stein	3,960	560	921	180	14	.....	2	304
Mount Sinai Hospital[2]	New York City	R. Kaufman	189	7,164	1	0	2	7/1	2	50
New York Hospital[2]	New York City	O. Diethelm	273	6,862	2	1	13	7/1	3	50
New York State Psychiatric Institute[1]	New York City	N. Lewis	343	1,150	1	1	20	1/1, 7/1	3	304
Rockland State Hospital[1]	Orangeburg, N. Y.	.....	8,080	4,350	326	106	22	7/1	2	300.16
†Stony Lodge Sanitarium[1]	Ossining, N. Y.	R. C. Gluck, Jr.	100	950	...	...	2	9/1	1	150
Hudson River State Hospital[1]	Poughkeepsie, N. Y.	W. C. Groom	5,682	956	585	90	8	7/1	2	476.66
Creedmoor State Hospital	Queens Village, N. Y.	H. A. LaBurt	6,613	3,420	321	51	9	Varies	2	304.58
Rochester State Hospital[1]	Rochester, N. Y.	O. A. Kilpatrick	4,304	9,391	303	56	10	Varies	2	304
Strong Memorial-Rochester Municipal Hosp.[2]	Rochester, N. Y.	J. Romano	750	4,615	1	1	10	7/1	3	41.66
Syracuse Psychopathic Hospital[1]	Syracuse, N. Y.	M. F. Brew	638	1,269	2	...	4	.....	2	304
Letchworth Village[1]	Thiells, N. Y.	.....	4,308	30	64	56	2	.....	1	300
Utica State Hospital[1]	Utica, N. Y.	F. J. O'Neill	2,507	2,567	192	26	5	.....	2	304.18
Grasslands Hospital[2]	Valhalla, N. Y.	F. Y. Rockwell	1,392	1,256	29	12	7	7/1	2	125
Pilgrim State Hospital[1]	W. Brentwood, N. Y.	H. J. Worthing	9,765	2,067	788	210	13	.....	2	304.17
New York Hospital—Westchester Division[1]	White Plains, N. Y.	J. H. Wall	700	.....	9	4	9	7/1	3	125
†Willard State Hospital[1]	Willard, N. Y.	K. Keill	3,357	812	277	20	5	9/1	2	304
Harlem Valley State Hospital[1]	Wingdale, N. Y.	L. P. O'Donnell	5,087	1,075	206	97	6	1/1	2	304.16
Duke Hospital[2]	Durham, N. C.	R. S. Lyman	335	1,904	1	...	10	7/1	3	83.33
†North Carolina Baptist Hospital[2]	Winston-Salem, N. C.	J. Thompson	502	5,728	7	5	6	7/1	3	41.66
†Windsor Hospital	Chagrin Falls, Ohio	J. H. Nichols	797	.....	12	2	2	7/1	1	150
Christ Hospital[2]	Cincinnati	H. D. Falsing	566	.....	7	2	1	7/1	1	90
Cincinnati General Hospital[1,2]	Cincinnati	M. Levine	1,041	578	14	8	22	7/1	3	...
†Cleveland Clinic Hospital[1,2]	Cleveland	L. J. Karnosh	...	...	...	...	...	.....	2	125
Cleveland State Hospital	Cleveland	E. H. Crawfis	2,402	376	184	3	1	7/1	...	252
Cleveland State Receiving Hospital	Cleveland	E. H. Crawfis	1,250	552	53	17	1	1/1, 7/1	2	...
University Hospitals[2]	Cleveland	D. D. Bond	136	3,415	...	...	4	7/1	2	25
Columbus State Hospital	Columbus, Ohio	R. Kovity	3,077	822	265	91	8	7/1	2	246.66
Massillon State Hospital	Massillon, Ohio	A. G. Hyde	3,087	1,654	215	57	3	1/1, 7/1	2	150
Harding Sanitarium[1]	Worthington, Ohio	H. Evans	525	3,564	7	...	3	1/1, 9/1	2	250
†Central Oklahoma State Hospital[1]	Norman, Okla.	D. W. Griffin	3,000	.....	233	1	2	.....	1	300
Oregon State Hospital	Salem, Ore.	D. Brooks	2,850	.....	349	132	2	.....	2	150
†Allentown State Hospital[1]	Allentown, Pa.	H. F. Hoffman	2,995	701	127	16	13	Varies	2	257.50
Danville State Hospital[1]	Danville, Pa.	V. J. Cassone	2,877	1,271	138	36	9	.....	2	...
Harrisburg State Hospital[1]	Harrisburg, Pa.	H. C. Eaton	2,960	511	179	54	5	7/1	2	257
Norristown State Hospital[1]	Norristown, Pa.	A. P. Noyes	5,127	1,825	313	95	18	.....	2	257.50
Friends Hospital[1]	Philadelphia	T. L. Dehne	308	1,199	15	7	7	7/1	2	200
Hospital of the University of Pennsylvania[2]	Philadelphia	K. E. Appel	...	9,698	...	...	8	Varies	2	...
Institute of the Pennsylvania Hospital[1]	Philadelphia	L. H. Smith	393	6,116	...	12	7/1	3	250
Jefferson Medical College Hospital[2]	Philadelphia	B. L. Keyes	52	2,097	...	...	1	.....	1	...
Pennsylvania Hospital, Department for Mental and Nervous Diseases[1,2]	Philadelphia	L. H. Smith	634	.....	14	3	11	7/1	3	166.67
Philadelphia General Hospital[2]	Philadelphia	J. Stouffer	2,785	158	166	59	2	7/1	3	75
Philadelphia Psychiatric Hospital[1]	Philadelphia	N. W. Winkelman	460	1,480	3	...	5	7/1	2	100
Temple University Hospital[2]	Philadelphia	O. S. English	...	7,245	...	...	5	7/1	2	50
St. Francis Hospital[1]	Pittsburgh	H. L. Mitchell	.....	360	96	25	4	7/1	2	100
Pittsburgh Medical Center[1,2]	Pittsburgh	R. A. Clark	750	2,701	6	3	12	9/1	3	272.50
Warren State Hospital[1]	Warren, Pa.	R. H. Israel	3,385	...	280	90	10	7/1	2	257
Woodville State Hospital	Woodville, Pa.	R. J. Phifer	2,574	70	172	36	4	7/1	1	333
State Hospital for Mental Diseases[1]	Howard, R. I.	J. F. Regan	3,949	177	322	44	9	7/1	2	333.33
Butler Hospital[1]	Providence, R. I.	D. E. Wright	365	1,643	30	8	7	7/1	2	175
Charles V. Chapin Hospital[1]	Providence, R. I.	T. L. Greason	873	566	9	3	2	.....	1	275
†Vanderbilt University Hospital[2]	Nashville, Tenn.	W. F. Ott	99	1,560	...	...	2	7/1	2	83.41
†Parkland Hospital[2]	Dallas, Texas	G. Witt	351	531	2	2	2	7/1	1	50
Timberlawn Sanitarium	Dallas, Texas	O. F. Wise	500	.....	1	...	1	1/1, 7/1	2	300
University of Texas Medical Branch Hospitals Galveston State Psychopathic Hospital John Sealy[2]	Galveston, Texas	T. B. Harris and S. R. Ewalt	2,117	4,473	21	11	17	7/1, 9/1	3	50
†Vermont State Hospital[1]	Waterbury, Vt.	R. A. Chittick	1,705	.....	111	44	1	.....	1	200
University of Virginia Hospitals[2]	Charlottesville, Va.	D. C. Wilson	515	1,483	3	2	6	.....	3	75
Medical College of Virginia Hospital Division[2]	Richmond, Va.	R. F. Gayle, Jr.	667	2,287	2	2	3	.....	3	...
Western State Hospital[1]	Ft. Steilacoom, Wash.	R. H. Rea	2,477	.....	350	176	7	2/1, 3/1, 4/1	2	...
Eastern State Hospital[1]	Medical Lake, Wash.	R. H. Southcomb	2,638	875	198	6	4	1/1, 7/1	2	300
Northern State Hospital[1]	Sedro Woolley, Wash.	J. W. Doughty	627	.....	208	78	2	7/1	2	262
State of Wisconsin General Hospitals[2]	Madison, Wis.	W. J. Bieckwenn	1,022	942	6	4	3	1/1, 7/1	2	25
Milwaukee County Hosp. for Mental Diseases[1]	Milwaukee	M. Kasak	1,682	1,173	34	23	9	1/1, 7/1	2	150
Milwaukee Sanitarium[1]	Wauwatosa, Wis.	J. A. Kindwall	...	.....	9	6	2	.....	2	...
Queens Hospital[2]	Honolulu, Hawaii	R. D. Kepner	986	118	1	...	3	7/1	2	75

24. PULMONARY DISEASES

The following services are approved by the Council and the American Board of Internal Medicine. Hospitals, 112 Assistant Residencies and Residencies, 372

Name of Hospital United States Army	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered*	Beginning of Service (1950)	Beginning Salary (Month)
Fitzsimmons General Hospital[2]	Denver	C. W. Tempel	2,135	456	45	33	..	1/1, 7/1	D
Federal Security Agency									
Freedmen's Hospital[2]	Washington, D. C.	.....	165	6,577	51	20	3	7/1	D
Veterans Administration									
Veterans Admin. Hospital[2]	Van Nuys, Calif.	J. D. Davis	536	4,121	35	28	..	1/1, 7/1	D
Veterans Admin. Hospital[1]	Ft. Logan, Colo.	T. K. Gleichman	283	2,607	9	5	..	.....	D
Veterans Admin. Hospital	Hines, Ill.	H. C. Sweany	625	.....	125	65	..	1/1, 7/1	D

Numerical and other references will be found on page 1215.

24. PULMONARY DISEASES—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res., and Residencies Offered [4]	Beginning of Service (1950)	Preliming Stipend (Month)
Veterans Admin. Hospital	Rutland Hghts., Mass.	S. T. Allison	1,681	850	63	28	1	7/1	n
Veterans Admin. Hospital	Minneapolis	W. B. Tucker	531	700	22	20	..	7/1	n
Veterans Admin. Hospital [1]	Excelsior Springs, Mo.	P. C. Bruce	341	480	28	16	3	1/1	n
Veterans Admin. Hospital [1]	Castle Point, N. Y.	J. K. Deegan	1,133	378	73	44	2	1/1, 7/1	n
Veterans Admin. Hospital [1]	Staten Island, N. Y.	V. F. Woolf	367	150	30	23	2	7/1	n
Veterans Admin. Hospital	Sunmount, N. Y.	N. D'Esopo	801	436	29	13	3	1/1, 7/1	n
Veterans Admin. Hospital	Otten, N. C.	W. S. Schwartz	2,710	5,134	171	109	1	7/1	n
Veterans Admin. Hospital	Brecksville, Ohio	K. E. Kimber	653	1,505	37	14	5	7/1	n
Veterans Admin. Hospital	Legion, Texas	.....	.....	.....	...	...	8	.....	n
Veterans Admin. Hospital [1]	McKinney, Texas	.....	198	.....	25	19	9	7/1	n
Veterans Admin. Hospital	Walla Walla, Wash.	L. S. Arany	710	202	21	12	1	2/1	n
Veterans Admin. Center	Milwaukee	R. A. Hemphill	383	917	31	23	..	.....	n
Nonfederal									
Los Angeles Sanatorium [1]	Duarte, Calif.	A. E. T. Rogers	436	.....	24	8	3	7/1	250
Arroyo Dei Valle Sanatorium [1]	Livermoore, Calif.	J. T. Duncan	521	776	25	0	1	7/1	100
Barlow Sanatorium [1]	Los Angeles	H. W. Bosworth	204	2,936	1	...	2	7/1	100
Birt Harte Sanatorium [1]	Murphys, Calif.	E. P. Smart	259	6,004	37	3	2	7/1	400
Olive View Sanatorium [1]	Olive View, Calif.	C. E. Babcock	2,196	.....	136	43	16	.....	417
San Diego County General Hospital [2]	San Diego, Calif.	F. P. O'Hara	415	2,569	43	16	1	7/1	250
San Francisco Hospital [2]	San Francisco	.....	.....	.....	...	4	4	7/1	175
Santa Clara County Hospital [2]	San Jose, Calif.	C. Ianne	108	8,854	41	8	2	7/1	225
Fairmont Hospital of Alameda County [1]	San Leandro, Calif.	J. L. Eaton	102	2,872	30	11	..	7/1	145
Tulare-Kings Counties Joint Tuberculosis Hospital [1]	Springville, Calif.	W. A. Winn	252	1,632	11	6	3	1/1, 7/1	450
National Jewish Hospital [1]	Denver	A. Hurst	510	3,122	26	17	5	7/1	100
Laurel Heights State Tuberculosis Sanatorium	Shelton, Conn.	E. J. Lynch	452	2,560	24	30	2	1/1, 7/1	185
Gaylord Farm Sanatorium [1]	Wallingford, Conn.	W. H. Morries	287	3,000	1	....	3	6/1	100
Tuberculosis Sanatorium (Glendale, Md., P. O.) [1]	Washington, D. C.	D. L. Finucane	967	.....	102	48	8	7/1	200
†City of Chicago Municipal Tuberculosis Sanitarium	Chicago	O. L. Bettag	2,432	104,708	284	128	6	1/1, 7/1	125
University of Chicago Clinics [2]	Chicago	R. G. Bloch	.....	2,085	...	...	...	.....	...
Macon County Tuberculosis Sanatorium [1]	Decatur, Ill.	D. F. Lorwen	143	7,847	8	8	1	1/1	250
Pleasant View Sanatorium	East St. Louis, Ill.	W. S. Broker	181	4,093	32	1	1	1/1	150
Peoria Municipal Tuberculosis Sanitorium [1]	Peoria, Ill.	D. Morse	160	2,216	19	19	1	.....	...
Rockford Municipal Tuberculosis Sanatorium	Rockford, Ill.	W. J. Bryan	250	3,710	21	3	1	5/1	250
Lake County Tuberculosis Sanatorium [1]	Waukegan, Ill.	C. K. Petter	95	4,985	28	18	1	.....	...
Boehne Tuberculosis Hospital [1]	Evansville, Ind.	P. D. Crimm	477	785	32	32	1	7/1	250
Indianapolis General Hospital [2]	Indianapolis	W. S. Tucker	211	2,721	31	..	..	7/1	60
Sunnyside Sanatorium	Indianapolis	F. L. Jennings	386	1,514	30	8	1	7/1	300
Healthwin Hospital [1]	South Bend, Ind.	E. W. Custer	309	1,225	30	5	2	Varies	250
State Sanatorium [1]	Oakdale, Iowa	W. M. Spear	781	3,659	65	22	2	.....	160
†Waverly Hills Sanatorium [1]	Waverly Hills, Ky.	A. B. Mullen	725	.....	107	11	2	7/1	90
Charity Hospital of Louisiana [2]	New Orleans	.....	851	10,901	176	21	4	7/1	100
Western Maine Sanatorium	Greenwood Mt., Maine	L. Adams	275	644	19	5	..	.....	...
Baltimore City Hospitals [2]	Baltimore	H. V. Langehattig	594	.....	91	47	4	7/1	15
Boston Sanatorium	Boston	J. A. Foley	1,015	.....	124	...	8	.....	...
Rutland State Sanatorium [1]	Rutland, Mass.	P. Dutkuit	430	2,113	20	10	2	.....	...
Middlesex County Sanatorium [1]	Waltham, Mass.	F. P. Dawson	573	19,484	36	19	2	7/1	370
Westfield State Sanatorium [1]	Westfield, Mass.	J. Jovell	122	4,375	33	2	3	7/1	430
Belmont Hospital [1]	Worcester, Mass.	H. K. Spengler	280	3,842	40	10	2	1/1	125
American Legion Hospital [1]	Battle Creek, Mich.	J. E. Moody	248	.....	24	...	4	7/1	250
Herman Kiefer Hospital [1]	Detroit, Mich.	P. T. Chapman	1,840	55,281	225	112	9	7/1	365
Michigan State Sanatorium [1]	Howell, Mich.	W. F. Fidler	653	3,018	44	...	5	Varies	615
Ingham Sanatorium	Lansing, Mich.	C. J. Stringer	441	18,022	30	7	..	7/1	300
Morgan Heights Sanatorium [1]	Marquette, Mich.	J. R. Arocks	180	3,675	14	4	1	Varies	250
William H. Maybury Sanatorium [1]	Northville, Mich.	L. L. Howard	844	.....	116	22	6	7/1	275
Oakland County Tuberculosis Sanatorium	Pontiac, Mich.	C. P. Mehas	433	1,035	26	8	4	7/1	300
Nopeming Sanatorium [1]	Nopeming, Minn.	G. A. Hedberg	575	3,977	27	20	2	1/1, 7/1	150
Glen Lake Sanatorium [1]	Oak Terrace, Minn.	E. S. Mariette	1,029	34,780	69	35	5	.....	125
Mississippi State Tuberculosis Sanatorium	Sanatorium, Miss.	H. Rowell	783	2,652	32	...	1	7/1	300
Kansas City Municipal Tuberculosis Hospital	Kansas City, Mo.	G. K. Landis	274	195	84	19	3	5/1	150
Robert Koch Hospital [1]	Koch, Mo.	G. D. Kettelkamp	882	.....	100	41	9	7/1	133
Homer G. Phillips Hospital [2]	St. Louis	A. Goldman	276	738	57	8	..	7/1	98
Mount St. Rose Sanatorium [1]	St. Louis	P. Murphy	351	1,937	38	11	1	7/1	35
New Jersey Sanatorium for Tuberculosis Diseases	Glen Gardner, N. J.	J. A. Smith	540	2,345	20	3	10	.....	375
Berthold S. Polak Hospital for Chest Diseases	Jersey City, N. J.	F. Quigley	741	20,314	209	34	8	.....	166.66
Bergen Pines, Bergen County Hospital [1]	Ridgewood, N. J.	R. R. Little	668	10,084	77	11	1	1/1	200
Essex County Sanatorium [1]	Verona, N. J.	A. M. Hicks	759	.....	179	34	9	Varies	246.66
Albany Hospital [2]	Albany, N. Y.	R. F. Erickson	701	1,677	44	24	7	7/1	41.66
Montefiore Hospital Country Sanatorium [1]	Bedford Hills, N. Y.	S. Rothbard	230	.....	...	...	5	1/1, 7/1	100
Kings County Hospital [2]	Brooklyn	C. E. Hamilton	1,220	7,755	150	10	4	7/1	150
Kingston Avenue Hospital [1]	Brooklyn	F. Murray	365	.....	52	10	3	7/1	150
Edward J. Meyer Memorial Hospital [2]	Buffalo	G. Dayman	841	1,041	177	39	3	7/1	100
Nassau County Tuberculosis Hospital [1]	Farmingdale, N. Y.	J. C. Walsh	342	10,563	48	10	5	.....	150
Hermann M. Biggs Memorial Hospital [1]	Ithaca, N. Y.	N. S. Lincoln	490	9,187	20	10	4	7/1	250
Triboro Hospital [1]	Jamaica, N. Y.	R. H. Bennett	1,149	8,795	120	51	12	.....	60
†Niagara Sanatorium [1]	Lockport, N. Y.	A. N. Aitken	340	5,282	34	19	2	.....	248
Bellevue Hospital, Division 1—Columbia University [2]	New York City	.....	.....	.....	...	...	...	.....	...
Lenox Hill Hospital [2]	New York City	G. Thorbum	72	1,345	1	...	1	.....	50
Metropolitan Hospital [2]	New York City	I. G. Epstein	718	5,346	140	21	6	7/1	150
Montefiore Hospital for Chronic Diseases [1]	New York City	S. Rothbard	332	.....	34	10	5	1/1, 7/1	50
Morrisania City Hospital [2]	New York City	E. H. Rubin	.....	.....	...	1	1	7/1	80
St. Josephs Hospital for Chest Diseases	New York City	F. J. McCarthy	730	.....	51	15	4	7/1	175
Seton Hospital	New York City	.....	.....	.....	...	...	...	.....	...
Henry Ford Tuberculosis Hospital [1]	Oregon, N. Y.	R. Horton	458	9,025	41	20	4	7/1	250
Municipal Sanatorium [1]	Otisville, N. Y.	J. S. Edlin	1,382	.....	5	2	7	1/1, 7/1	150
Ray Brook State Tuberculosis Hospital [1]	Ray Brook, N. Y.	H. A. Bray	678	6,185	30	9	5	1/1, 7/1	...
Iola-Monroe County Tuberculosis Sanatorium [1]	Rochester, N. Y.	F. Bridge	656	18,791	91	54	6	7/1	266.66
Schenectady County Tuberculosis Hospital [1]	Schenectady, N. Y.	J. M. Blake	287	3,501	18	8	2	7/1	100
Sea View Hospital [1]	Staten Island, N. Y.	G. G. Ornstein	2,900	680	406	57	25	1/1, 7/1	150
Trudeau Sanatorium [1]	Trudeau, N. Y.	E. S. Packard	433	.....	...	...	3	Varies	50
Grasslands Hospital [2]	Valhalla, N. Y.	W. G. Childress	531	2,859	62	20	7	7/1	125
Jefferson County Sanatorium [1]	Watertown, N. Y.	S. E. Simpson	56	3,221	12	5	1	.....	175
North Carolina Sanatorium for the Treatment of Tuberculosis	McCain, N. C.	J. S. Hiatt	1,081	2,611	120	27	6	1/1	50

Numerical and other references will be found on page 1215.

24. PULMONARY DISEASES—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
Donham Hospital	Cincinnati	J. H. Shaviem	913	3,008	128	65	3	7/1	$200
City Hospital[24]	Cleveland	R. C. McKay	955	742	198	70	2	7/1	300
Benjamin Franklin Hospital	Columbus, Ohio	W. L. Potts	546	21,741	55	14	6	Varies	200
Sunny Acres, Cuyahoga County Tuberculosis Hospital [1]	Warrenville, Ohio	H. G. Curtis	761	52,504	65	18	6	7/1	200
†Mahoning Tuberculosis Sanatorium [1]	Youngstown, Ohio	W. Newcomer	387	1,281	47	30	2	7/1	250
Eagleville Sanatorium for Consumptives [1]	Eagleville, Pa.	A. J. Cohen	355	.....	5	1	3	7/1	150
Pennsylvania State Sanatorium for Tuberculosis, No. 3	Hamburg, Pa.	C. L. Brown and C. Detterich	825	809	...	...	2	7/1	$47.50
Jefferson Medical College Hospital	Philadelphia		...	.....	...	...	..	.....	...
Philadelphia General Hospital[24]	Philadelphia	C. Holben	1,139	.....	230	122	..	7/1	75
Tuberculosis League Hospital [1]	Pittsburgh	C. H. Marcy	356	13,859	24	7	2	7/1	200
Oakville Memorial Sanatorium [1]	Oakville, Tenn.	J. B. Phim	724	562	103	12	6	.....	150
Woodlawn Hospital [1]	Dallas, Texas	E. Mendenhall	237	.....	42	34	1	7/1	50
Firland Sanatorium [1]	Seattle	R. Davies	1,654	.....	95	61	2	7/1	150
Muirdale Sanatorium [1]	Milwaukee	A. Y. Cadden	1,478	.....	95	29	2	.....	...
Wisconsin State Sanatorium	Statesan, Wis.	R. H. Schmidt, Jr.	326	.....	11	8	2	.....	150
†Leahi Hospital [1]	Honolulu, Hawaii	H. H. Walker	1,014	2,171	58	23	5	Varies	175

25. RADIOLOGY

The following services are approved by the Council and the American Board of Radiology until July 1, 1951. As previously announced (J. A. M. A. May 14, 1949, p. 211) these services have been reviewed in collaboration with the American Board of Radiology to determine whether approval will be continued and to determine further the number of years of training in individual hospitals which the Board will accept in preparation for its certification examination.

A revised list of approved residencies in Radiology will appear in the Educational Number of the Journal, scheduled for publication in the early fall. Physicians planning to apply for residency training in radiology to begin on or after July 1, 1951 should consult this list in making application for appointment.

Hospitals, 375 Assistant Residencies and Residencies, 970

Name of Hospital	Location	Chief of Service	Type of Training	Roentgenographic Examinations	X-Ray Treatments	Radium Treatments	Asst., Res. and Residencies Offered *	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
United States Army										
Letterman General Hospital[24]	San Francisco	E. A. Lodmell	Rad.	38,814	6,196	47	7	1/1, 7/1	3	n
Fitzsimmons General Hospital[24]	Denver	F. Y. Leavell	Roent.	39,317	3,451	805	9	1/1, 7/1	1	n
Army Medical Center[24,15]	Washington, D. C.	H. L. Amory	Rad.	63,319	14,461	779	6	7/1	3	n
†Brooke Army Medical Center[24,11]	San Antonio, Texas	C. A. Craig	Roent.	61,281	2,412	127	6	7/1	1	n
Tripler General Hospital[24]	Moanalua, T. H.	A. O. Hall	Rad.	41,658	1,205	...	..	7/1	3	n
United States Navy										
†U. S. Naval Hospital[24]	Long Beach, Calif.	G. Gartenlaub	Roent.	27,869	5,253	264	4	.....	1	n
†U. S. Naval Hospital[24]	Oakland, Calif.	K. H. Vinnedge	Roent.	24,312	2,600	...	2	.....	1	n
U. S. Naval Hospital	San Diego, Calif.	R. C. Douthat	Rad.	32,264	4,545	221	2	.....	3	n
†U. S. Naval Hospital[24]	Great Lakes, Ill.	J. R. Wood	Roent.	19,750	115	...	2	.....	1	n
†U. S. Naval Hospital[24]	Bethesda, Md.	M. W. Mason	Roent.	27,282	2,222	65	3	Varies	1	n
†U. S. Naval Hospital[24]	Chelsea, Mass.	G. F. Fraser	Roent.	25,584	2,465	15	..	.....	..	n
U. S. Naval Hospital[24]	St. Albans, N. Y.	S. F. Williams	Roent.	30,038	2,200	11	2	.....	3	n
U. S. Naval Hospital	Philadelphia	A. H. Staderman	Roent.	20,715	1,900	6	3	1/1, 7/1	1	n
United States Public Health Service										
U. S. Marine Hospital[24]	New Orleans	A. Mayoral	Rad.	18,488	309	...	1	7/1	1	n
†U. S. Marine Hospital[24]	Baltimore	J. E. Wirth	Ther. / Rad.	18,304	5,884	114	3	7/1	1	n
†U. S. Marine Hospital[24]	Stapirton, S. I., N. Y.	W. M. Sennott	Roent.	33,972	2,422	...	3	7/1	1	n
Federal Security Agency										
Freedmen's Hospital[24]	Washington, D. C.	C. H. Kelley		15,488	4,920	28	2	.....	..	n
Veterans Administration										
Veterans Admin. Center[24]	Los Angeles	C. W. McClanahn	Rad.	51,526	12,982	266	7	1/1	3	n
†Veterans Admin. Hospital	San Francisco	W. W. Saunders	D.R.	19,258	215	6	2	7/1	1	n
†Veterans Admin. Hospital[24]	San Suys, Calif.	E. P. Bugbee and I. Frank	D.R.	32,677	1,265	25	5	1/1, 7/1	1	n
Veterans Admin. Hospital [1]	Fort Logan, Colo.	C. F. Ingersoll	D.R.	13,716	.....	...	6	7/1	1	n
†Veterans Admin. Hospital	Newington, Conn.	A. G. Anspenger	Rad.	20,048	.....	...	2	7/1	1	n
†Veterans Admin. Hospital [1]	Washington, D. C.	S. B. Bersack	D.R.	10,251	1,816	18	3	7/1	1	n
†Veterans Admin. Hospital	Chamblee, Ga.	C. A. Privitera	Roent.	19,609	6,416	4	3	7/1	1	n
Veterans Admin. Hospital	Hines, Ill.	F. L. Hussey	Rad.	126,540	19,560	191	10	1/1, 7/1	3	n
†Veterans Admin. Hospital [1]	Indianapolis	R. T. Levin	D.R.	11,311	657	11	3	1/1, 7/1	1	n
Veterans Admin. Center	Des Moines, Iowa	W. Henkin	Rad.	36,604	1,697	...	..	7/1	1	n
†Veterans Admin. Center [1]	Wadsworth, Kan.	F. J. Mantell	D.R.	30,500	18,656	...	4	1/1, 7/1	1	n
Veterans Admin. Hospital	Wichita, Kan.	R. E. Hines		10,455	541	20	1	1/1, 7/1	..	n
†Veterans Admin. Hospital [1]	Louisville, Ky.	D. Shapiro	D.R.	33,110	3,104	30	5	.....	1	n
†Veterans Admin. Hospital [1]	New Orleans	L. Raider	D.R.	32,075	4,304	2	3	7/1	1	n
†Veterans Admin. Hospital	Fort Howard, Md.	J. T. Brackin, Jr.	D.R.	10,360	57	...	2	7/1	1	n
†Veterans Admin. Hospital	Boston (West Roxbury)	E. Wissing	D.R.	16,418	1,942	2	3	1/1, 7/1	1	n
Veterans Admin. Hospital [1]	Framingham, Mass.	D. Kornbluh	Rad.	24,000	60	...	4	.....	1	n
†Veterans Admin. Hospital [1]	Dearborn, Mich.	E. E. Levine	D.R.	28,844	2,676	...	4	7/1	1	n
†Veterans Admin. Hospital [1]	Minneapolis	B. O. Loughlin and D. L. Fink	D.R.	46,781	3,600	32	6	7/1	..	n
Veterans Admin. Hospital [1]	Jefferson Bks., Mo.	S. Kamberg	Rad.	22,639	5,334	34	6	7/1	1	n
†Veterans Admin. Hospital [1]	New York City	A. Sheinmel	Roent.	68,639	13,444	80	6	7/1	1	n
Veterans Admin. Hospital [1]	Staten Island, N. Y.	E. K. Brunner		29,620	2,201	27	3	7/1	..	n
†Veterans Admin. Hospital [1]	Cleveland	M. D. Sachs	D.R.	35,295	4,120	47	4	7/1	1	n
Veterans Admin. Hospital	Dayton, Ohio	F. A. Bavendam		39,362	0	0	1	.....	..	n
†Veterans Admin. Hospital	Portland, Ore.	K. C. Hardesty	Roent.	19,470	4,719	3	1	1/1, 7/1	1	n
†Veterans Admin. Hospital	Aspinwall, Pa.	G. H. Alexander		25,230	1,962	6	3	1/1, 7/1	1	n
†Veterans Admin. Hospital	Memphis, Tenn.	W. H. Medel	D.R.	47,592	4,852	17	6	7/1	1	n
Veterans Admin. Hospital	Nashville, Tenn.	K. M. Debert	D.R.	7,076	1,671	129	3	7/1	1	n
†Veterans Admin. Hospital [1]	Dallas, Texas	J. J. Sazama	Rad.	1,324	123	1	3	1/1	1	n

Numerical and other references will be found on page 1215.

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25. RADIOLOGY—Continued

Name of Hospital	Location	Chief of Service	Type of Training	Roentgenographic Examinations	X-Ray Treatments	Radium Treatments	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
†Veterans Admin. Hospital[1]	McKinney, Texas	B. K. Lovell	D.R.	26,506	2,119	47	3	7/1	1	n
†Veterans Admin. Hospital	Temple, Texas	I. J. Zimmerman	D.R.	19,935	45	...	2	....	1	n
†Veterans Admin. Hospital[1]	Salt Lake City	H. H. Plenk	D.R.	13,100	.....	...	2	7/1	1	n
Veterans Admin. Center[1]	White River Jct., Vt.	N. W. Loud	....	30,261	516	...	2	1/1	..	n
†Veterans Admin. Center	Milwaukee	T. J. Pieffer	D.R.	35,600	2,785	1	3	7/1	1	n
Nonfederal										
Carraway Methodist Hospital*	Birmingham, Ala.	L. E. Sorrell and E. B. Teague	....	7,441	3,010	80	..	7/1	1	150
Jefferson-Hillman Hospital*[1]	Birmingham, Ala.	B. Carter	Rad.	26,436	9,444	120	4	1/1, 7/1	1	50
St. Monicas Hospital and Health Center*[1]	Phoenix, Ariz.	J. Foster	....	5,410	1,919	14	1	7/1	1	180
†Tucson Medical Center*[1]	Tucson, Ariz.	A. Present	Rad.	4,822	511	26	..	....	..	...
University Hospital*[1]	Little Rock, Ark.	I. Meschan	Roent.	15,718	8,678	58	5	7/1	3	75
San Joaquin General Hospital*[1]	French Camp, Calif.	A. M. Cove	Roent.	29,580	1,980	17	1	7/1	1	220
General Hospital of Fresno County*[1]	Fresno, Calif.	C. L. Ould	Rad.	12,860	1,112	...	1	7/1	1	218
Seaside Memorial Hospital*[1]	Long Beach, Calif.	H. J. Prichard	Rad.	11,250	5,796	33	1	7/1	1	150
Cedars of Lebanon Hospital*[1]	Los Angeles	E. Freedman and H. L. Jaffee	Rad.	16,367	8,437	75	2	7/1	1	75
Hospital of the Good Samaritan*[1]	Los Angeles	R. T. Taylor	Rad.	16,081	4,907	...	..	7/1	1	150
Los Angeles County Hospital*[1]	Los Angeles	R. A. Carter	Rad.	80,460	8,331	457	8	Varies	3	165
Queen of Angels Hospital*	Los Angeles	L. S. Goin	Rad.	10,3[illegible]6	4,128	49	1	7/1	1	100
St. Vincents Hospital*	Los Angeles	K. S. Davis	Rad.	8,072	1,027	35	1	7/1	3	100
White Memorial Hospital*[1]	Los Angeles	W. L. Stilson	Rad.	12,561	5,172	352	4	7/1	3	120
Highland Alameda County Hospital*[1]	Oakland, Calif.	H. H. Jensen	Rad.	14,362	1,804	34	1	....	3	135
Permanente Foundation Hospital*[1]	Oakland, Calif.	M. Abel	Rad.	24,678	30,027	25	..	....	1	125
Collis P. and Howard Huntington Memorial Hospital*	Pasadena, Calif.	J. F. Chapman and R. S. Harrison	Roent.	9,582	2,400	...	1	7/1	2	120
Childrens Hospital*[1]	San Francisco	G. King	Rad.	6,235	1,493	53	1	7/1	1	50
Franklin Hospital*[1]	San Francisco	A. J. Williams	Roent.	11,345	4,035	1	..	7/1	1	100
Mount Zion Hospital*	San Francisco	J. Levitin	Roent.	6,217	488	...	1	....	1	50
St. Francis Hospital	San Francisco	A. A. DeLorimier	....	13,723	4,434	81	1	7/1	..	200
†St. Mary's Hospital*	San Francisco	C. S. Capp	Roent.	10,823	2,453	...	1	1/1	..	100
San Francisco Hospital*[1]	San Francisco	....	Rad.	72,222	3,278	33	6	7/1	2	175
Stanford University Hospitals*[1]	San Francisco	H. S. Kaplan	Rad.	12,643	3,940	107	5	7/1	3	50
University of California Hospital*	San Francisco	R. S. Stone	Rad.	22,048	9,492	119	4	....	3	75
Santa Clara County Hospital	San Jose, Calif.	J. Von Saitza	Roent.	7,430	492	12	1	7/1	1	235
†Santa Barbara Cottage Hospital*	Santa Barbara, Calif.	M. J. Geyman and R. Gates	D.R.	5,580	3,490	21	1	7/1	..	100
St. John's Hospital*	Santa Monica, Calif.	J. G. Conti	Rad.	3,869	300	22	1	9/1	..	150
St. Francis Hospital and Sanatorium	Colorado Spgs., Colo.	V. L. Bolton	D.R.	5,677	3,845	9	1	7/1	..	125
Presbyterian Hospital*	Denver	K. D. A. Allen	Rad.	6,147	640	43	1	7/1	3	75
St. Luke's Hospital*	Denver	W. P. Stampfli	Rad.	7,983	1,646	3	1	7/1	1	40
University of Colorado Medical Center										
Colorado General Hospital*	Denver	M. H. Levine	Rad.	25,758	2,131	44	7	7/1	3	75
Denver General Hospital*[1]	Denver	E. Salzman	Rad.	22,152	600	5	3	7/1	1	75
Corwin Hospital*[1]	Pueblo, Colo.	G. Unfug	Roent.	9,190	163	...	1	7/1	2	75
†Bridgeport Hospital*	Bridgeport, Conn.	B. M. Parmelee	Rad.	7,033	1,739	140	1	7/1	1	100
Hartford Hospital	Hartford, Conn.	R. T. Ogden	Rad.	25,356	10,471	78	3	7/1	3	50
Grace-New Haven Community										
Grace Unit	New Haven, Conn.	R. M. Lowman	Rad.	11,351	3,821	16	2	7/1	1	52
New Haven Unit (University Service)*[1]	New Haven, Conn.	H. M. Wilson	Rad.	27,324	4,645	130	4	7/1	3	40
†Hospital of St. Raphael*[1]	New Haven, Conn.	R. Shapiro	Roent.	9,172	2,437	37	2	7/1	1	75
St. Mary's Hospital*[1]	Waterbury, Conn.	S. Atkins	....	11,180	1,403	37	1	....	..	150
†Waterbury Hospital*[1]	Waterbury, Conn.	S. Blank	Rad.	8,598	1,491	...	2	7/1	..	100
†Delaware Hospital*	Wilmington, Del.	W. M. Lattomus	D.R.	13,332	3,370	108	1	7/1	2	110
Wilmington General Hospital*	Wilmington, Del.	S. T. Miller	....	5,826	0	11	..	....	..	...
Central Dispensary and Emergency Hospital*[1]	Washington, D. C.	J. E. Wissler	Rad.	11,065	2,551	28	2	7/1	3	100
Doctors Hospital*	Washington, D. C.	A. C. Christie	Rad.	20,650	9,465	191	6	7/1	3	125
†Gallinger Municipal Hospital*[1]	Washington, D. C.	R. J. Terrafranca	Rad.	28,401	520	10	2	7/1	1	100
Garfield Memorial Hospital*[1]	Washington, D. C.	A. O. Hampton	Rad.	12,616	5,349	33	..	....	2	...
Georgetown University Hospital*	Washington, D. C.	M. Copeland	Rad.	15,057	2,881	20	5	7/1	2	75
George Washington University Hospital*[1]	Washington, D. C.	W. W. Stanbro	Rad.	11,124	1,901	40	3	7/1	1	50
Sibley Memorial Hospital*[1]	Washington, D. C.	W. M. Clopton	Rad.	9,580	1,664	50	2	7/1	3	100
James M. Jackson Memorial Hospital*[1]	Miami, Fla.	M. M. Greenfield	Rad.	22,119	4,085	32	1	7/1	2	60
Georgia Baptist Hospital[1]	Atlanta, Ga.	L. Long	....	4,292	2,591	60	3	1/1, 7/1	..	75
Grady Memorial Hospital*[1]	Atlanta, Ga.	H. S. Weens	Rad.	37,932	6,220	66	4	7/1	3	20
Piedmont Hospital*[1]	Atlanta, Ga.	G. Hrdlicka	Rad.	5,249	787	...	1	7/1	3	75
†University Hospital*	Augusta, Ga.	L. P. Holmes	Rad.	17,884	2,042	...	3	7/1	3	40
†Emory University Hospital*	Emory University, Ga.	T. F. Leigh	Rad.	10,351	6,346	138	2	7/1	1	50
†Alexian Brothers Hospital	Chicago	M. Indovina	Roent.	12,297	1,513	...	1	7/1	1	125
Augustana Hospital*	Chicago	D. S. Beilin	Rad.	8,843	9,346	...	2	4/1	3	50
Cook County Hospital*[1]	Chicago	G. Landau	Rad.	98,404	18,223	171	3	1/1, 7/1	3	85
†Edgewater Hospital*	Chicago	N. S. Zeitlin	Roent.	11,144	1,453	...	1	7/1	1	200
Englewood Hospital*	Chicago	A. J. Rosenblatt	....	......	1,497	...	..	....	..	...
†Illinois Masonic Hospital*[1]	Chicago	J. H. Gilmore	Rad.	12,243	461	6	1	7/1	1	80
†Lutheran Deaconess Home and Hospital*[1]	Chicago	F. Hussey	Roent.	11,358	1,974	...	..	7/1	1	100
†Mercy Hospital-Loyola University Clinics*[1]	Chicago	W. Furey	Rad.	15,865	11,396	196	2	7/1	1	25
Michael Reese Hospital*[1]	Chicago	R. A. Arens and F. M. Uhlmann	Rad.	29,180	17,100	2,840	5	....	3	25
Mount Sinai Hospital*	Chicago	J. Arendt	Roent.	13,457	3,358	...	3	7/1	2	75
Northwestern University Medical Center										
Passavant Hospital*	Chicago	R. B. Lewis	Rad.	9,533	968	25	..	....	3	...
Presbyterian Hospital*	Chicago	F. H. Squire	Rad.	42,402	6,337	53	4	....	3	25
Provident Hospital*[1]	Chicago	W. P. Quinn	Rad.	4,383	2,525	16	3	7/1	3	30
†Ravenswood Hospital*[1]	Chicago	D. L. Jenkinson	Rad.	9,542	1,937	...	2	....	1	60
Research and Educational Hospitals*[1]	Chicago	R. A. Harvey	Rad.	44,987	13,129	380	6	7/1	3	55
†St. Bernard's Hospital*	Chicago	B. S. Cushway	Rad.	......	......	...	..	....	1	...
†St. Joseph Hospital*[1]	Chicago	W. E. Anspach	Roent.	17,234	1,129	...	1	7/1	1	...
St. Luke's Hospital*[1]	Chicago	E. L. Jenkinson	Rad.	29,961	7,790	...	6	7/1	3	100
University of Chicago Clinics*	Chicago	P. C. Hodges	Rad.	24,588	9,229	168	9	1/1, 7/1	3	25
Wesley Memorial Hospital*[1]	Chicago	E. E. Barth	Rad.	28,274	2,355	47	3	7/1	3	25
†Woodlawn Hospital*[1]	Chicago	L. Donaldson	Roent.	4,771	1,217	6	1	7/1	1	150
Evanston Hospital*	Evanston, Ill.	R. G. Willy	Rad.	8,448	2,948	58	4	7/1	3	50
†St. Francis Hospital*	Evanston, Ill.	A. C. Ledoux	Rad.	21,266	1,770	27	..	7/1	1	75
†Little Company of Mary Hospital*[1]	Evergreen Park, Ill.	W. W. Furey	D.R.	19,286	2,080	55	1	7/1	1	100
†Methodist Hospital of Central Illinois*	Peoria, Ill.	F. H. Decker	Rad.	7,324	2,673	108	1	11/15	1	150
St. Francis Hospital*[1]	Peoria, Ill.	P. B. Dirkse	Rad.	16,300	3,655	6	..	7/1	3	100

Numerical and other references will be found on page 1215.

25. RADIOLOGY—Continued

Name of Hospital	Location	Chief of Service	Type of Training[12]	Roentgenographic Examinations	X-Ray Treatments	Radium Treatments	Asst. Res. and Residencies Offered[8]	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
†Clinic Hospital	Bluffton, Ind.	W. S. Tirman	Rad.	15,054	2,502	31	3	4/1, 8/1	1	100
†St. Mary's Mercy Hospital*	Gary, Ind.	C. P. Galanti	Roent.	10,523	1,870	14	..	7/1	1	150
St. Margaret Hospital*	Hammond, Ind.	J. F. Larrabee	Roent.	7,652	1,363	15	1	....	2	175
Indianapolis General Hospital*[1]	Indianapolis	L. A. Smith	Rad.	19,312	6,425	50	3	7/1	3	100
Indiana University Medical Center*[1]	Indianapolis	J. A. Campbell	Rad.	24,046	11,224	278	8	7/1	3	83.33
Methodist Hospital*[1]	Indianapolis	H. C. Oehsner	Rad.	22,534	6,098	60	2	....	3	200
†St. Elizabeth Hospital*	LaFayette, Ind.	R. W. Currie	Rad.	6,289	2,058	31	1	7/1	1	100
†Ball Memorial Hospital*[1]	Muncie, Ind.	B. W. Stocking	Roent.	10,683	3,272	24	3	7/1	1	100
Iowa Methodist Hospital*[1]	Des Moines, Iowa	T. A. Burcham	Rad.	8,185	618	...	1	7/1	3	75
University Hospitals*[1]	Iowa City	H. D. Kerr	Rad.	46,455	18,045	16	6	....	..	...
University of Kansas Medical Center*	Kansas City, Kan.	G. Tice	Rad.	29,123	8,641	261	4	7/1	3	100
Wesley Hospital*[1]	Wichita, Kan.	N. C. Nash	....	8,434	4,042	25	1	7/1	..	200
†Louisville General Hospital*[1]	Louisville, Ky.	E. L. Pirkey	Rad.	28,328	3,068	11	4	7/1	1	45
Norton Memorial Infirmary*	Louisville, Ky.	J. C. Bell	....	6,952	2,215	12	..	....	..	...
†St. Joseph Infirmary*	Louisville, Ky.	S. E. Johnson	Rad.	13,726	9,280	129	3	....	1	75
Baptist Hospital*[1]	Alexandria, La.	H. O. Barker	Rad.	6,820	6,449	380	1	....	..	...
Charity Hospital of Louisiana*[1]	New Orleans	L. J. Menville	Rad.	135,419	68,502	565	10	7/1	3	25
†Ochsner Foundation Hospital[1]	New Orleans	E. H. Little	Rad.	9,249	......	...	3	7/1	1	125
Southern Baptist Hospital*[1]	New Orleans	L. J. Bristow, Jr.	Rad.	13,468	4,290	...	3	7/1	3	150
Touro Infirmary*[1]	New Orleans	E. Schmidt	Roent.	......	6,060	...	3	7/1	3	17.50
Shreveport Charity Hospital*	Shreveport, La.	G. M. Riley	Rad.	18,684	9,241	70	3	7/1	3	60
Eastern Maine General Hospital*[1]	Bangor, Me.	H. A. Smith	....	10,242	2,235	110	1	7/1	..	50
†Baltimore City Hospitals*[1]	Baltimore	S. H. Macht	Rad.	35,583	1,980	188	4	7/1	1	15
Johns Hopkins Hospital*[1,17]	Baltimore	R. H. Morgan	Rad.	67,384	10,006	204	3	7/1	3	41.66
†Sinai Hospital*	Baltimore	J. O. Salik	Roent.	13,978	680	2	1	7/1	1	25
†Union Memorial Hospital*[1]	Baltimore	W. B. Firor	Rad.	11,346	......	...	..	....	..	...
University Hospital*[1]	Baltimore	W. L. Kilby	Rad.	23,795	6,318	240	4	7/1	2	...
Beth Israel Hospital*[1]	Boston	S. Robins	Rad.	14,204	2,196	15	3	7/1	2	41.66
Boston City Hospital*[1]	Boston	M. Ritvo	Rad.	80,322	4,317	60	7	Varies	3	110
Children's Hospital*[1]	Boston	E. B. D. Neuhauser	Roent.	21,493	1,870	...	..	....	..	...
Faulkner Hospital*	Boston	L. E. Hawes	....	6,129	519	...	1	....	..	...
Lahey Clinic	Boston	H. F. Hare	Rad.	20,000	8,158	22	3	7/1	3	125
Massachusetts General Hospital*	Boston	....	....	......	......	...	..	....	..	...
Massachusetts Memorial Hospital*[1]	Boston	G. Levene	Roent.	11,761	2,239	27	4	1/1, 7/1	1	50
New England Center Hospital[1]	Boston	A. Ettinger	Rad.	22,822	1,404	...	2	7/1	3	75
New England Deaconess Hospital	Boston	J. H. Marks	Rad.	13,568	4,894	166	5	7/1	2	135
Peter Bent Brigham Hospital*	Boston	M. C. Sosman	Rad.	39,465	2,230	...	..	7/1	3	...
†St. Elizabeth's Hospital*	Boston	W. A. Carey	Roent.	6,826	......	...	1	7/1	..	75
Cambridge City Hospital*	Cambridge, Mass.	F. W. O'Brien	....	10,232	335	3	1	7/1	1	75
†Mount Auburn Hospital*[1]	Cambridge, Mass.	R. Schatzki	D.R.	15,704	1,549	...	1	4/1	1	100
†Lawrence General Hospital[1]	Lawrence, Mass.	G. V. West	Rad.	12,449	4,551	18	..	....	1	...
Newton-Wellesley Hospital*[1]	Newton, Mass.	C. Liebman	Roent.	10,674	1,094	10	2	7/1	2	25
†Quincy City Hospital*	Quincy, Mass.	W. S. Altman	Roent.	9,427	423	3	1	7/1	1	150
Salem Hospital*[1]	Salem, Mass.	S. A. Wilson	Rad.	9,889	1,513	18	3	Varies	3	50
†Westfield State Sanatorium[1]	Westfield, Mass.	J. W. Turner	Rad.	11,715	5,818	53	1	7/1	1	430
†Memorial Hospital*[1]	Worcester, Mass.	W. J. Elliott	Rad.	10,277	2,054	15	1	7/1	..	100
St. Joseph Mercy Hospital*[1]	Ann Arbor, Mich.	S. W. Donaldson	Rad.	17,331	2,400	50	4	7/1	3	125
University Hospital*[1]	Ann Arbor, Mich.	F. J. Hodges	Rad.	46,606	10,826	357	14	7/1	3	139.00
Leila Y. Post Montgomery Hospital*	Battle Creek, Mich.	S. P. Barden	....	7,327	1,559	46	1	7/1	..	150
City of Detroit Receiving*[1]	Detroit	I. D. Harris	Roent.	46,027	......	...	3	7/1	2	180.00
Grace Hospital*[1]	Detroit	H. A. Jarre	Rad.	24,731	6,184	43	3	7/1	3	75
Harper Hospital*[1]	Detroit	L. Reynolds	Rad.	25,895	20,715	510	..	7/1	3	...
Henry Ford Hospital*[1]	Detroit	H. P. Doub	Rad.	50,306	2,236	186	5	7/1	3	200
†Herman Kiefer Hospital[1]	Detroit	C. C. Birkelo	Roent.	50,457	180	...	1	7/1	1	332
Mt. Carmel Mercy Hospital*[1]	Detroit	J. M. Grace	D.R.	15,451	2,439	24	1	7/1	1	150
Provident Hospital*	Detroit	W. A. Irwin	Rad.	17,472	7,941	243	3	....	3	140
†Wayne County General Hosp. and Infirmary*[1]	Eloise, Mich.	N. R. Shippey	Rad.	27,788	2,800	25	2	7/1	1	235
Hurley Hospital*	Flint, Mich.	D. R. Limbach	Rad.	7,139	5,702	197	2	7/1	3	135
†Butterworth Hospital*	Grand Rapids, Mich.	R. J. McCandliss	Rad.	15,754	2,834	63	2	7/1	1	100
†Hackley Hospital	Muskegon, Mich.	L. E. Holly	Roent.	11,972	3,799	33	1	....	1	...
†Northwestern Hospital*	Minneapolis	C. O. Hansen	Roent.	1,222	9,887	31	1	10/1	1	150
†Swedish Hospital*	Minneapolis	G. T. Nordin	....	......	......	...	1	7/1	1	125
University of Minnesota Hospitals*[1]	Minneapolis	L. Rigler	Rad.	36,965	10,708	580	11	7/1	3	125
Mayo Foundation	Rochester, Minn.	....	....	......	......	...	15	....	3	92.50
†St. Louis County Hospital*	Clayton, Mo.	E. W. Spinzig	Rad.	8,164	704	...	1	7/1	1	80
†Kansas City General Hospital No. 1*	Kansas City, Mo.	L. Scarpellino and D. S. Dann	Rad.	21,913	1,872	76	2	7/1	1	50
Kansas City General Hospital No. 2	Kansas City, Mo.	I. Lockwood	....	16,297	......	24	1	7/1	3	50
†Menorah Hospital*[1]	Kansas City, Mo.	D. S. Dann	Rad.	8,812	2,040	34	1	1/10	1	125
Research Hospital*[1]	Kansas City, Mo.	I. Lockwood	Rad.	83,792	11,555	617	6	7/1	3	275
St. Joseph Hospital*	Kansas City, Mo.	C. E. Virden	Rad.	11,329	4,489	142	1	1/1	3	130
†St. Luke's Hospital*	Kansas City, Mo.	L. A. Scarpellino	Rad.	10,334	1,380	20	2	7/1	1	75
Barnes Hospital*[1]	St. Louis	H. Wilson	Rad.	41,370	12,842	201	10	7/1	3	25
Homer G. Phillips Hospital*[1]	St. Louis	W. E. Allen, Jr.	Rad.	18,599	1,008	44	..	....	..	98
†Jewish Hospital*[1]	St. Louis	P. C. Schnoebelen	Rad.	12,306	6,077	61	1	7/1	1	100
St. Louis City Hospital*[1]	St. Louis	D. Weir	Rad.	42,806	2,913	156	5	7/1	3	...
St. Luke's Hospital*	St. Louis	O. C. Zink	Rad.	8,542	1,536	139	1	....	3	75
St. Mary's Group of Hospitals*	St. Louis	L. Sante	Rad.	26,483	2,635	157	3	7/1	3	35
Creighton Memorial, St. Joseph's Hospital*[1]	Omaha	J. F. Kelly	Rad.	25,597	2,551	27	3	7/1	3	...
†Nebraska Methodist Hospital*	Omaha	H. B. Hunt	Rad.	7,901	4,678	85	1	11/1	1	100
University of Nebraska Hospital*[1]	Omaha	H. B. Hunt	Rad.	7,038	2,622	89	5	7/1	3	75
†St. Mary's Hospital[1]	Reno, Nev.	M. J. Thorpe	Roent.	3,065	102	...	1	7/1	1	300
Mary Hitchcock Memorial Hospital*[1]	Hanover, N. H.	L. K. Sycamore	Rad.	20,409	3,083	149	3	7/1	2	150
†Atlantic City Hospital*	Atlantic City, N. J.	R. A. Bradley	Rad.	10,191	3,063	79	..	....	..	50
†Jersey City Hospital*[1]	Jersey City, N. J.	H. J. Perlberg	Rad.	36,839	8,519	196	4	....	1	35
†Monmouth Memorial Hospital*[1]	Long Branch, N. J.	W. G. Herrman	Rad.	5,374	580	26	1	7/1	1	150
Hospital of St. Barnabas for Women and Children*[1]	Newark, N. J.	P. J. Gianquinto	....	......	......	...	..	....	..	...
Newark Beth Israel Hospital*	Newark, N. J.	N. J. Furst	Rad.	7,978	4,975	1,923	1	7/1	1	100
Newark City Hospital	Newark, N. J.	P. Santora	....	16,634	2,640	24	1	....	..	60
†Orange Memorial Hospital*[1]	Orange, N. J.	W. H. Seward	Rad.	13,178	6,153	33	1	7/1	1	100
†Newcomb Hospital	Vineland, N. J.	J. G. Cohen	D.R.	......	......	...	..	....	1	...
†Albany Hospital*[1]	Albany, N. Y.	W. P. Howard	Roent.	21,433	2,082	102	1	7/1	1	41.66
†Beth-El Hospital*[1]	Brooklyn	M. Dannenberg	Roent.	8,871	1,065	78	1	7/1	1	100
†Brooklyn Cancer Institute	Brooklyn	W. E. Howes	....	7,597	7,118	392	4	7/1	1	75
Brooklyn Hospital*[1]	Brooklyn	J. H. Wentworth	Rad.	11,278	1,668	135	2	7/1	2	75

Numerical and other references will be found on page 1215.

25. RADIOLOGY—Continued

Name of Hospital	Location	Chief of Service	Type of Training[13]	Roentgenographic Examinations	X-Ray Treatments	Radium Treatments	Asst. Res. and Residencies Offered[8]	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Jewish Hospital*[1]	Brooklyn	M. G. Wasch	Rad.	19,918	3,272	81	3	7/1	3	30
Kings County Hospital*[1]	Brooklyn	B. Ehrenpreis	D. R. Ther. Rad.	101,064	1,069	175	4	1/1, 7/1	3	80
Long Island College Hospital*[1]	Brooklyn	A. L. L. Bell	Rad.	18,646	5,220	68	3	7/1	3	50
†Maimonides Hospital*[1]	Brooklyn	L. A. Held and L. Nathanson	Roent.	6,036	719	17	2	7/1	1	75
Methodist Hospital*[1]	Brooklyn	G. C. Cramp	Rad.	29,890	1,541	123	2	7/1	2	50
Buffalo General Hospital*	Buffalo	G. C. Culver	Roent.	22,700	9,268	168	..	....	..	...
Edward J. Meyer Memorial Hospital*[1]	Buffalo	E. G. Eschner	Rad.	34,621	3,798	31	3	7/1	3	100
Roswell Park Memorial Institute[1]	Buffalo	W. T. Murphy	....	8,032	49,143	721	..	....	..	...
Clifton Springs Sanitarium and Clinic[1]	Clifton Springs, N. Y.	G. S. Schwarz	D.R.	5,946	1,799	114	2	....	1	30
Meadowbrook Hospital*[1]	Hempstead, N. Y.	J. J. La Vine	Rad.	9,090	2,743	12	1	7/1	2	134
Queens General Hospital*[1]	Jamaica, N. Y.	I. S. Startz	Rad.	45,349	6,978	46	3	7/1	2	...
†Charles S. Wilson Memorial Hospital[1]	Johnson City, N. Y.	B. D. Jay	Roent.	14,249	1,801	31	1	7/1	1	125
†Mount Vernon Hospital[1]	Mount Vernon, N. Y.	L. M. Bond	Rad.	12,867	993	...	1	7/1	1	200
Bellevue Hospital Division III—New York University	New York City	....	Ther. Rad.	......	.....	...	..	....	1	...
Division IV—Open Division	New York City	*I. M. Kaplan and L. J. Friedman	D.R.	124,268	8,214	1,039	3	1/1, 7/1	1	80
Beth Israel Hospital*[1]	New York City	A. J. Bendick	Rad.	9,300	2,820	13	2	1/1, 7/1	3	50
Bronx Hospital*[1]	New York City	W. Snow	Rad.	12,769	2,091	15	2	7/1	2	75
†Doctors Hospital[1]	New York City	A. J. Tillinghast	Roent.	6,225	1,167	...	1	1/1, 7/1	1	200
Flower and Fifth Avenue Hospitals*[1]	New York City	F. J. Borrelli	Rad.	12,002	2,657	75	2	7/1	3	...
French Hospital*	New York City	E. M. Claiborne	Rad.	13,124	1,305	...	1	7/1	2	100
Goldwater Memorial Hospital*[1]	New York City	H. K. Taylor	Roent.	13,575	91	...	3	7/1	2	65.41
Hospital for Joint Diseases*[1]	New York City	M. M. Pomeranz	Rad.	21,294	1,864	20	2	1/1	3	40
Lebanon Hospital*[1]	New York City	J. Bower and S. F. Weitzner	....	10,136	197	...	..	7/1	..	100
Lenox Hill Hospital*[1]	New York City	F. H. Ghiselin	Roent.	23,475	2,992	273	2	Varies	2	30
Lincoln Hospital*[1]	New York City	E. Kraft	Rad.	28,452	980	7	2	7/1	1	80
Memorial Hospital[1]	New York City	R. Sherman	D.R.	31,177	46,735	601	10	1/1, 7/1	1	15
Metropolitan Hospital*[1]	New York City	T. B. Weinberg	Rad.	25,908	......	...	2	7/1	2	80
Montefiore Hospital for Chronic Diseases*[1]	New York City	S. Fineman	Rad.	......	......	...	6	1/1, 7/1	2	50
Morrisania City Hospital*[1]	New York City	S. F. Weitzner	Rad.	......	3,048	65	1	7/1	2	80
Mount Sinai Hospital*	New York City	B. S. Wolf	Rad.	32,590	7,972	85	5	....	3	...
New York City Hospital*[1]	New York City	A. Bachman	D.R.	14,317	4	...	2	7/1	1	130
New York Hospital*[1]	New York City	R. P. Ball	Rad.	80,286	9,577	50	5	9/1	3	25
New York Polyclinic Medical School and Hospital*	New York City	W. H. Shehadi	Rad.	8,900	1,952	26	2	7/1	2	50
Presbyterian Hospital*[1]	New York City	R. Golden	Rad.	85,006	20,557	377	11	1/1, 7/1	3	41.66
Roosevelt Hospital*[1]	New York City	C. Smith	Rad.	27,208	2,679	...	3	7/1	3	...
St. Luke's Hospital*	New York City	H. F. Hempel	Rad.	28,363	4,845	105	3	7/1	2	50
†St. Vincent's Hospital*[1]	New York City	W. W. Maver	Rad.	23,438	3,362	46	2	7/1	1	50
Sydenham Hospital*[1]	New York City	J. Moseley	Roent.	6,355	391	18	1	7/1	1	130
University Hospital*	New York City	C. Gottlieb	Rad.	10,846	5,986	573	3	1/1	2	80
United Hospital	Port Chester, N. Y.	T. S. West	Roent.	8,948	2,904	16	1	7/1	1	100
Genesee Hospital*[1]	Rochester, N. Y.	G. Baron	Roent.	15,016	1,358	28	1	7/1	1	91.66
Rochester General Hospital*[1]	Rochester, N. Y.	E. F. Merrill	Rad.	20,007	6,326	25	2	7/1	3	55
†St. Mary's Hospital*[1]	Rochester, N. Y.	A. V. Winchell	Rad.	8,036	1,756	18	2	7/1	1	125
Strong Memorial-Rochester Municipal Hospitals*[1]	Rochester, N. Y.	G. H. Ramsey	Rad.	23,418	6,776	226	8	7/1	3	41.66
Ellis Hospital*[1]	Schenectady, N. Y.	K. L. Mitton	Roent.	11,116	1,334	...	1	7/1	1	125
Sea View Hospital[1]	Staten Island, N. Y.	A. V. Shapiro	D.R.	19,475	......	...	1	7/1	1	150
†Crouse Irving Hospital*	Syracuse, N. Y.	C. F. Potter	Roent.	5,611	303	...	1	7/1	1	...
Grasslands Hospital*[1]	Valhalla, N. Y.	A. G. Debbie	Rad.	15,544	4,039	58	3	7/1	3	125
Charlotte Memorial Hospital*[1]	Charlotte, N. C.	W. C. A. Sternbergh	Rad.	12,123	1,981	55	1	7/1	1	75
Duke Hospital*[1]	Durham, N. C.	R. J. Reeves	Rad.	55,054	9,941	266	7	7/1	3	83.33
Watts Hospital*[1]	Durham, N. C.	W. W. Vaughan	Rad.	24,083	7,571	97	1	7/1	3	50
†City Memorial Hospital[1]	Winston-Salem, N. C.	H. S. Adams	Roent.	16,511	1,954	21	1	7/1	1	150
North Carolina Baptist Hospital*[1]	Winston-Salem, N. C.	J. P. Rousseau	Rad.	24,910	3,910	83	4	7/1	3	41.66
†Bismarck Hospital	Bismarck, N. D.	H. M. Berg	Rad.	20,535	2,501	52	2	....	1	200
City Hospital*	Akron, Ohio	F. T. Moore	Rad.	30,962	10,286	122	2	7/1	3	100
†Peoples Hospital*	Akron, Ohio	E. L. Voke and J. F. McGreevey	Rad.	10,248	6,508	46	1	7/1	1	100
Aultman Hospital*	Canton, Ohio	S. Larson	....	12,017	2,656	25	..	....	..	...
†Mercy Hospital*	Canton, Ohio	J. J. Douglas	Rad.	20,948	3,406	76	1	7/1	1	100
Cincinnati General Hospital*	Cincinnati	H. G. Reineke and B. Felson	Rad.	39,269	1,705	70	8	7/1	3	...
Jewish Hospital*[1]	Cincinnati	S. Brown	Rad.	16,164	2,116	63	1	7/1	3	60
City Hospital*[1]	Cleveland	H. Hauser	Rad.	28,289	6,208	110	6	7/1	3	60
Cleveland Clinic Hospital[1]	Cleveland	C. R. Hughes	Rad.	84,549	8,330	223	9	7/1	3	135
†Lutheran Hospital*[1]	Cleveland	J. A. Groh	Rad.	8,233	3,242	...	1	7/1	1	50
†Mount Sinai Hospital*[1]	Cleveland	H. A. Mahrer	Rad.	14,459	2,571	20	2	7/1	1	100
†St. Alexis Hospital*[1]	Cleveland	E. P. McNamee	Rad.	11,017	......	30	1	7/1	1	75
St. John's Hospital*[1]	Cleveland	D. Steel	....	8,721	3,434	...	1	7/1	..	100
St. Luke's Hospital*	Cleveland	D. D. Brannan	Rad.	25,831	4,507	30	3	6/25	3	60
St. Vincent's Charity Hospital*	Cleveland	E. J. O'Malley	Rad.	12,858	1,353	18	2	7/1	1	50
University Hospitals*	Cleveland	H. L. Friedell	Rad.	32,064	8,474	250	5	7/1	3	25
Ohio State University Hospital*[1]	Columbus, Ohio	H. J. Means	Rad.	21,000	5,717	60	5	7/1	3	50
†Miami Valley Hospital*[1]	Dayton, Ohio	G. A. Nicoll	Rad.	14,189	2,487	70	2	7/1	1	75
St. Elizabeth's Hospital*	Dayton, Ohio	H. Snow	....	......	.....	...	..	....	..	...
†St. Vincent's Hospital*[1]	Toledo, Ohio	C. E. Hufford	Rad.	9,328	.....	39	1	7/1	1	...
†Youngstown Hospital*[1]	Youngstown, Ohio	J. Heberding and E. E. Baker	Rad.	37,476	9,769	57	3	7/1	1	75
University Hospitals*	Oklahoma City	P. E. Russo	Rad.	18,724	11,567	160	3	7/1	1	35
†Providence Hospital	Portland, Ore.	S. Rees	Roent.	10,021	2,115	...	1	7/1	1	75
St. Vincent's Hospital	Portland, Ore.	S. E. Rees	Rad.	12,181	3,708	23	1	7/1	3	75
University of Oregon Medical School Hospitals and Clinics*[1]	Portland, Ore.	W. Y. Burton	Rad.	31,095	3,795	24	4	7/1	3	75
Abington Memorial Hospital*[1]	Abington, Pa.	J. D. Zulick	Rad.	16,083	2,571	84	2	7/1	3	50
Allentown Hospital*	Allentown, Pa.	W. C. Troxell	....	10,598	1,536	...	1	7/1	3	100
Bryn Mawr Hospital*	Bryn Mawr, Pa.	R. S. Bromer	Rad.	16,982	4,204	161	13	....	3	80
Geo. F. Geisinger Memorial Hospital and Clinic*	Danville, Pa.	C. L. Hinkel	Rad.	12,336	2,073	55	2	7/1	3	75
St. Vincent's Hospital*	Erie, Pa.	R. D. Bacon	Rad.	9,430	950	26	1	7/1	1	50
†American Oncologic Hospital[1]	Philadelphia	W. A. Newcomet	Ther. Rad.	1,740	8,927	193	2	7/1	1	100

Numerical and other references will be found on page 1215.

25. RADIOLOGY—Continued

Name of Hospital	Location	Chief of Service	Type of Training [12]	Roentgenographic Examinations	X-Ray Treatments	Radium Treatments	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Episcopal Hospital[1]	Philadelphia	D. A. Sampson	Rad.	12,687	2,579	83	1	.....	2	...
†Frankford Hospital[1]	Philadelphia	M. T. Woodruff	Rad.	8,100	267	24	..	7/1	2	250
†Germantown Dispensary and Hospital[1]	Philadelphia	B. R. Young	Rad.	10,083	1,872	24	1	7/1	1	50
Graduate Hospital of the University of Pennsylvania*	Philadelphia	A. Finkelstein	Rad.	19,122	4,815	126	8	7/1	2	...
Hahnemann Hospital[1]	Philadelphia	J. S. Lehman	Rad.	19,956	2,158	488	4	9/1	2	50
Hospital of the University of Pennsylvania[1]	Philadelphia	E. P. Pendergrass	Rad.	100,000	25,332	90	21	.....	3	...
Hospital of the Woman's Medical College of Pennsylvania[1]	Philadelphia	J. H. Vastine		7,840	1,458	48	1	7/1	..	100
Jeanes Hospital [1]	Philadelphia	E. Pendergrass	Ther. / Rad.	1,882	3,878	43	1	1/1	2	75
Jefferson Medical College Hospital*	Philadelphia	P. C. Swenson	Rad.	46,864	17,692	260	9	.....	3	...
Jewish Hospital	Philadelphia	J. G. Cohen	Rad.	13,298	4,727	107	3	7/1	3	75
Lankenau Hospital[1]	Philadelphia	M. M. Meyers	Rad.	11,227	1,943	62	..	7/1	2	50
Mercy Douglass Hospital[1]	Philadelphia	R. F. Minton		2,344	6	...	..	7/1	..	100
Mount Sinai Hospital[1]	Philadelphia	L. Edelken	Rad.	9,712	551	79	2	7/1	3	50
†Nazareth Hospital	Philadelphia	J. S. Potter	Roent.	10,956	1,861	34	1	7/1	1	100
Pennsylvania Hospital*	Philadelphia	P. A. Bishop	Rad.	16,682	2,298	118	2	.....	3	30
Philadelphia General Hospital[1]	Philadelphia	R. P. Wilmarth	Rad.	32,986	10,971	261	9	.....	2	75
Presbyterian Hospital*	Philadelphia	E. L. Lame	Rad.	10,247	3,060	13	2	8/1	2	...
Temple University Hospital[1]	Philadelphia	W. E. Chamberlain	Rad.	31,658	5,245	55	7	7/1	3	50
Mercy Hospital[1]	Pittsburgh	J. A. L. McCullough	Rad.	38,992	6,779	140	..	7/1	1	100
Montefiore Hospital[1]	Pittsburgh	M. Goldsmith	Rad.	10,497	2,736	...	1	7/1	3	50
St. Francis Hospital[1]	Pittsburgh	L. H. Osmond	Rad.	20,774	3,441	21	1	7/1	1	100
Pittsburgh Medical Center**	Pittsburgh		Rad.	27,307	3,741	148	6	7/1	..	41.67
Western Pennsylvania Hospital[1]	Pittsburgh	R. Alby and E. Euphrat	Rad.	11,890	5,588	61	5	9/1	3	100
Robert Packer Hospital*	Sayre, Pa.	S. P. Petty	Rad.	18,670	4,029	39	2	7/1	3	150
†Chester County Hospital*	West Chester, Pa.	J. Gershon-Cohen	Roent.	6,861	2,778	4	..	.....	1	...
†Reading Hospital[1]	Reading, Pa.	G. W. Chamberlain	Rad.	10,471	4,751	57	..	.....	1	...
†Columbia Hospital*	Wilkesburg, Pa.	W. J. McGregor	Roent.	9,372	1,709	...	..	.....	1	...
†Rhode Island Hospital[1]	Providence, R. I.	L. A. Martineau	Rad.	22,749	3,113	...	2	7/1	1	50
Roger Williams General Hospital*	Providence, R. I.	R. R. Hunt								
Roper Hospital[1]	Charleston, S. C.	H. S. Petit	Rad.	12,273	4,380	94	2	7/1	2	75
†Columbia Hospital[1]	Columbia, S. C.	G. W. Smith, Jr.	Roent.	6,238	20,289	...	1	7/1	1	75
Baptist Memorial Hospital*	Memphis, Tenn.	J. E. Whitfeather	Rad.	12,815	3,093	261	2	7/1	3	75
John Gaston Hospital*	Memphis, Tenn.	D. S. Carroll	Rad.	95,307	4,740	73	4	7/1	3	...
Methodist Hospital[1]	Memphis, Tenn.	J. C. King	Rad.	14,360	4,222	...	3	.....	1	75
Vanderbilt University Hospital*	Nashville, Tenn.	C. C. McClure	Rad.	17,320	2,471	58	2	7/1	2	35.41
Baylor University Hospital[1]	Dallas, Texas	J. E. Miller	Rad.	12,461	4,056	25	4	7/1	3	50
†Methodist Hospital*	Dallas, Texas	R. H. Milwee	D.R.	7,681	1,054	53	1	7/1	1	25
Parkland Hospital[1]	Dallas, Texas	R. Clayton	Rad.	47,067	9,241	99	2	7/1	2	50
All Saints Hospital	Fort Worth, Texas	A. L. Roberts								
University of Texas Medical Branch Hospitals	Galveston, Texas	J. C. Rode	Rad.	33,987	4,177	39	5	7/1, 9/1	..	50
John Sealy Hospital*										
Hermann Hospital*	Houston, Texas	L. M. Vanehan								
†Methodist Hospital*	Houston, Texas	C. H. Burge	Roent.	7,467	2,017	18	..	.....	..	...
M. D. Anderson Hospital for Research Cancer	Houston, Texas									
St. Joseph's Infirmary	Houston, Texas	P. E. Wigby	Rad.	18,152	4,572	125	1	6/1	1	150
†Santa Rosa Hospital*	San Antonio, Texas	M. Davis	D.R.	12,159	1,176	56	1	7/1	1	150
Scott and White Hospital[1]	Temple, Texas	C. A. Stevenson	Rad.	49,673	6,601	...	4	.....	3	50
†Wichita Falls Clinic Hospital*	Wichita Falls, Texas	C. D. Wilson	Rad.	5,103	267	14	..	.....	1	400
†Salt Lake County General Hospital*	Salt Lake City	H. Plenk	D.R.	10,465	2,091	9	2	.....	1	...
Bishop De Goesbriand Hospital*	Burlington, Vt.	F. Van Buskirk		5,036	1,681	1	..	7/1	..	50
Mary Fletcher Hospital*	Burlington, Vt.	O. S. Peterson	Rad.	9,738	4,186	249	3	7/1	1	50
University of Virginia Hospital[1]	Charlottesville, Va.	V. W. Archer	Rad.	31,169	9,880	117	..	.....	..	...
†De Paul Hospital[1]	Norfolk, Va.	W. H. Whitmore	Roent.	7,280	1,994	45	1	7/1	1	100
†Norfolk General Hospital[1]	Norfolk, Va.	P. B. Parsons and L. B. Waters	Rad.	7,821	6,124	287	1	7/1	1	125
Medical College of Virginia Hospital Division[1]	Richmond, Va.	F. B. Mandeville	Rad.	25,301	5,140	167	4	.....	3	...
†Swedish Hospital (Tumor Clinic)[1]	Seattle	T. Blake	Ther. / Rad.	1,075	7,884	239	..	.....	1	100
Virginia Mason Hospital[1]	Seattle	T. Carlill		.....	.....	...	1	7/1	3	75
†Sacred Heart Hospital[1]	Spokane, Wash.	M. Harris and G. Bracher	Rad.	7,600	665	30	1	7/1	1	125
Methodist Hospital[1]	Madison, Wis.	W. L. Waskow	D.R.	10,454	1,794	...	..	7/1	1	150
State of Wisconsin General Hospital[1]	Madison, Wis.	E. A. Pohle and L. W. Paul	Rad.	38,777	8,535	156	4	1/1, 7/1	3	25
St. Joseph's Hospital*	Marshfield, Wis.	J. M. Wickham		3,265	1,578	18	..	.....	3	...
Columbia Hospital*	Milwaukee	K. A. Murton		31,629	2,950	...	1	7/1	3	75
†Evangelical Deaconess Hospital*	Milwaukee	A. M. Melamed	D.R.	11,616	2,013	24	1	7/1	1	...
†Milwaukee County Hospital[1]	Milwaukee	J. L. Marks	D.R.	35,355	1,829	23	3	7/1	1	175.38
†Milwaukee Hospital[1]	Milwaukee	H. W. Heike	Rad.	19,979	10,586	175	1	7/1	1	...
†Queens Hospital[1]	Honolulu, Hawaii	L. L. Buzaid	Rad.	6,976	9,800	14	1	7/1	1	75

26. SURGERY

The following services are approved by the Council and the American Board of Surgery. Hospitals designated by an asterisk offer approved training in Surgery of less than three years' duration, which is integrated with or contributory to a fully approved program.

Hospitals, 481 Assistant Residencies and Residencies, 3,742

Name of Hospital **United States Army**	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Letterman General Hospital[2]	San Francisco	L. D. Heaton	1,284	3,923	30	26	11	1/1, 7/1	3-4	n
Fitzsimmons General Hospital[2]	Denver	J. H. Forse	2,105	1,088	53	45	13	1/1, 7/1	3-4	n
Army Medical Center[2,3]	Washington, D. C.	S. F. Seeley	1,074	6,102	15	14	16	7/1	3-4	n
Brooke Army Medical Center[2,13]	San Antonio, Texas	J. B. Shaeffer	3,712	5,049	65	42	21	7/1	3-4	n
Gorgas Hospital[2]	Ancon, C. Z.	F. E. Hamilton	1,429	8,926	35	24	8	7/1	3-4	n
Tripler General Hospital[2]	Moanalua, Hawaii	D. M. Walker	7,685	30,711	10	9	9	7/1	3	n

Numerical and other references will be found on page 1215.

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26. SURGERY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered *	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
United States Navy										
U. S. Naval Hospital*	Long Beach, Calif.	L. L. Bean	3,579	10,384	65	55	6	....	4	n
U. S. Naval Hospital*	Oakland, Calif.	E. H. Dickinson	2,438	468	15	13	7	....	4	n
U. S. Naval Hospital*	San Diego, Calif.	T. G. Hays	3,207	10,780	61	51	8	....	4	n
U. S. Naval Hospital*	Great Lakes, Ill.	E. S. Lowe	769	92	12	10	6	Varies	*	n
U. S. Naval Hospital*[1]	Bethesda, Md.	H. A. Gross	512	180	49	41	9	Varies	4	n
U. S. Naval Hospital*	Chelsea, Mass.	C. G. Glegg	2,420	1,427	112	50	6	....	4	n
U. S. Naval Hospital*[1]	St. Albans, N. Y.	H. G. Young	1,656	2,001	63	52	6	Varies	4	n
U. S. Naval Hospital*	Philadelphia	L. G. Bell	4,286	5,318	41	14	10	1/1, 7/1	4	n
United States Public Health Service										
U. S. Marine Hospital*	San Francisco	S. P. Cooper	2,708	9,474	47	27	4	7/1	3	n
U. S. Marine Hospital*[1]	New Orleans	O. C. Williams	2,987	9,250	19	11	6	7/1	3	n
U. S. Marine Hospital*[1]	Baltimore	J. D. Lane, Jr.	2,211	7,024	15	12	7	7/1	3	n
U. S. Marine Hospital*	Boston	H. D. Fishburn	1,187	2,748	8	5	4	7/1	3	n
U. S. Marine Hospital*	Detroit	M. B. Noyes	1,384	.....	18	10	3	7/1	3	n
U. S. Marine Hospital*[1]	Stapleton, S. I., N. Y.	H. L. Skinner	6,928	16,508	90	56	10	7/1	3	n
U. S. Marine Hospital*[1]	Seattle	T. S. McGowan	2,744	13,018	28	22	6	7/1	3	n
Federal Security Agency										
Freedmen's Hospital*[1]	Washington, D. C.	C. R. Drew	1,182	8,904	48	25	10	7/1	4	n
Veterans Administration										
Veterans Admin. Hospital	Tuskegee, Ala.	A. C. Yancey	.....	.....	..	..	..	....	3	n
Veterans Admin. Center*[1]	Los Angeles	W. P. Longmire	1,231	2,756	5	3	20	7/1	4	n
Veterans Admin. Hospital [1]	San Francisco	J. W. Martin	1,419	3,010	25	18	11	7/1	3-4	n
Veterans Admin. Hospital*[1]	Van Nuys, Calif.	J. A. Weinberg	1,323	5,965	15	13	12	1/1, 7/1	4	n
Veterans Admin. Hospital [1]	Fort Logan, Colo.	P. M. Ireland	1,005	.....	22	21	9	1/1	3-4	n
Veterans Admin. Hospital	Newington, Conn.	A. Hurwitz	1,967	1,925	19	12	12	7/1	3-4	n
Veterans Admin. Hospital [1]	Washington, D. C.	J. G. Lee	1,981	3,841	36	31	7	7/1	3-4	n
Veterans Admin. Hospital	Coral Gables, Fla.	M. H. Todd	2,150	2,407	27	24	10	7/1	3	n
Veterans Admin. Hospital	Chamblee, Ga.	W. H. Proctor, Jr.	1,642	1,223	84	50	15	7/1	3	n
Veterans Admin. Hospital	Hines, Ill.	C. B. Puestow	5,729	.....	95	57	50	1/1, 7/1	4	n
Veterans Admin. Hospital	Indianapolis	H. L. Egbert	2,072	.....	46	37	11	1/1, 7/1	4	n
Veterans Admin. Center	Des Moines, Iowa	L. T. Palumbo	4,038	.....	57	45	15	7/1	3-4	n
Veterans Admin. Center [1]	Wadsworth, Kan.	W. I. Hinkle	1,684	.....	54	45	11	1/1, 7/1	3	n
Veterans Admin. Hospital	Wichita, Kan.	P. Cooper	2,008	.....	26	23	8	1/1, 7/1	3	n
Veterans Admin. Hospital [1]	Louisville, Ky.	J. E. Hamilton	2,151	2,836	51	33	17	....	4	n
Veterans Admin. Hospital [1]	New Orleans	I. K. Richardson	1,580	1,097	31	23	15	7/1	4	n
Veterans Admin. Hospital	Fort Howard, Md.	J. M. Miller	1,386	555	21	16	7	7/1	3-4	n
Veterans Admin. Hospital	Perry Point, Md.	R. T. Shackelford	1,500	.....	16	12	5	7/1	4	n
Veterans Admin. Hospital	Boston	F. Ross	2,929	10,009	55	40	14	1/1, 7/1	3-4	n
Veterans Admin. Hospital [1]	Framingham, Mass.	H. H. Faxon	1,683	1,398	18	14	16	7/1	4	n
Veterans Admin. Hospital	Dearborn, Mich.	G. S. Bates	4,242	6,114	129	82	21	7/1	3-4	n
Veterans Admin. Hospital [1]	Minneapolis	L. J. Hay	3,626	3,516	53	41	24	7/1	3-4	n
Veterans Admin. Hospital	Jefferson Bks., Mo.	K. B. Coldwater	1,862	.....	35	21	16	7/1	4	n
Veterans Admin. Hospital	Lincoln, Neb.	W. P. Kleitsch	1,007	.....	27	25	6	7/1	3	n
Veterans Admin. Hospital	Albuquerque, N. M.	R. I. Carlson	549	.....	1	1	7	7/1	3	n
Veterans Admin. Hospital [1]	Batavia, N. Y.	W. H. Sears	1,427	2,170	37	24	11	7/1	3	n
Veterans Admin. Hospital [1]	New York City	P. K. Sauer	2,069	4,267	67	38	16	1/1, 7/1	3-4	n
Veterans Admin. Hospital [1]	Staten Island, N. Y.	M. K. Smith	2,809	2,071	30	23	20	1/1, 7/1	4	n
Veterans Admin. Hospital [1]	Cleveland	P. F. Partington	2,509	515	41	30	16	7/1	3-4	n
Veterans Admin. Center	Dayton, Ohio	C. C. Burton	2,835	6,500	81	44	15	7/1	4	n
Veterans Admin. Hospital [1]	Oklahoma City	F. A. Quenzer	882	.....	29	22	6	7/1	3-4	n
Veterans Admin. Hospital	Portland, Ore.	R. A. Wise	1,900	631	104	84	12	1/1, 7/1	3-4	n
Veterans Admin. Hospital	Aspinwall, Pa.	W. W. Fellows	2,409	.....	43	21	14	7/1	3-4	n
Veterans Admin. Hospital	Columbia, S. C.	K. M. Lippert	1,035	.....	19	17	4	....	3-4	n
Veterans Admin. Hospital	Memphis, Tenn.	R. F. Bowers	3,640	7,188	61	44	22	7/1	3-4	n
Veterans Admin. Hospital	Nashville, Tenn.	R. S. McCleery	.....	.....	..	..	18	7/1	4	n
Veterans Admin. Hospital [1]	Dallas, Texas	L. J. Kleinsasser	943	.....	20	9	6	7/1	3-4	n
Veterans Admin. Hospital [1]	Houston, Texas	J. P. Heaney	612	.....	19	19	6	7/1	4	n
Veterans Admin. Hospital [1]	McKinney, Texas	J. P. North	1,051	.....	23	20	12	7/1	4	n
Veterans Admin. Hospital [1]	Salt Lake City	J. A. Gubler	1,318	2,038	24	24	10	7/1	4	n
Veterans Admin. Center [1]	White River Jct., Vt.	W. B. Crandell	1,991	.....	16	14	11	7/1	4	n
Veterans Admin. Hospital [1]	Richmond, Va.	R. F. MacDonald	3,166	.....	67	45	27	7/1	4	n
Veterans Admin. Center	Milwaukee	F. Raine	1,622	519	65	53	12	7/1	3-4	n
Nonfederal										
Carraway Methodist Hospital*	Birmingham, Ala.	C. N. and B. M. Carraway	854	15,798	14	5	5	7/1	3	150
Jefferson-Hillman Hospital*[1]	Birmingham, Ala.	R. Guthrie	2,900	11,234	85	87	10	7/1	4	50
Employees' Hospital of Tennessee Coal, Iron and Railroad Company*	Fairfield, Ala.	R. A. Hamrick	1,064	18,043	10	4	5	7/1	4	225
University Hospital*[1]	Little Rock, Ark.	G. O. Dean	838	7,346	45	21	15	7/1	4	75
Herrick Memorial Hospital*[1]	Berkeley, Calif.	S. H. Babington	880	6,966	7	6	2	7/1	3	50
San Joaquin General Hospital*[1]	French Camp, Calif.	W. Brock	2,248	14,456	77	66	5	7/1	3	220
General Hospital of Fresno County*	Fresno, Calif.	C. L. Vanderberg	915	3,607	57	21	5	7/1	3	218
Cedars of Lebanon Hospital*	Los Angeles	....	4,994	3,983	74	24	2	7/1	3	75
Hospital of the Good Samaritan*[1]	Los Angeles	P. J. Cunnane	6,918	4,615	18	6	4	7/1	3	150
Los Angeles County Hospital*[1]	Los Angeles	L. A. Alesen	4,433	12,319	297	95	12	Varies	4	165
St. Vincent's Hospital*	Los Angeles	F. Breslin	7,669	.....	32	17	2	7/1	3	100
White Memorial Hospital*	Los Angeles	C. E. Stafford	1,154	5,465	38	17	7	7/1	3	120
Highland Alameda County Hospital*[1]	Oakland, Calif.	S. Everingham and W. W. Crane	1,669	.....	66	28	3	....	3	135
Permanente Foundation Hospital*[1]	Oakland, Calif.	A. L. Baritell	1,622	21,532	44	21	7	....	4	125
Samuel Merritt Hospital	Oakland, Calif.	W. Crane	1,497	.....	8	7	4	7/1	*	100
San Bernardino County Charity Hospital*	San Bernardino, Calif.	C. Sprague	779	5,312	43	..	2	1/1	3	170
Mercy Hospital*	San Diego, Calif.	J. J. O'Hara	5,062	1,080	97	81	4	7/1	3	100
San Diego County General Hospital*	San Diego, Calif.	H. G. Holder	1,006	4,669	76	31	3	7/1	3	125
Franklin Hospital*[1]	San Francisco	T. F. Mullen	1,831	.....	30	22	7	7/1	4	100
French Hospital*[1]	San Francisco	W. L. Rogers	967	.....	7	2	2	7/1	*	105
Mount Zion Hospital*	San Francisco	F. I. Harris	841	1,686	13	8	4	....	4	50
St. Joseph's Hospital*	San Francisco	A. R. Kilgore	2,783	85	18	12	6	7/1	3	200
San Francisco Hospital*[1]	San Francisco	....	.....	.....	..	..	16	7/1	4	175
Southern Pacific General Hospital*	San Francisco	V. M. Straub	1,281	.....	14	5	8	7/1	3	...
Stanford University Hospitals*[1]	San Francisco	E. F. Holman	2,386	11,484	60	84	12	7/1	4	50
University of California Hospital*[1]	San Francisco	H. G. Bell	1,382	9,647	21	8	9	9/1	4	75
Santa Barbara Cottage Hospital*[1]	Santa Barbara, Calif.	W. K. Jennings	2,568	1,513	38	19	7	7/1	3	100

Numerical and other references will be found on page 1215.

26. SURGERY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Harbor General Hospital*	Torrance, Calif.	H. H. Jacob	803	2,334	53	24	7	7/1	3	165
Mercy Hospital*[1]	Denver	F. Good	7,047	.....	46	25	3	7/1	3	40
Presbyterian Hospital*	Denver	G. B. Kent	3,983	883	68	25	2	7/1	3	75
St. Anthony Hospital	Denver	....	.....	.....	..	..	..	....	3	...
St. Joseph's Hospital	Denver	J. Fostek	1,726	.....	7	3	5	7/1	3	85
St. Luke's Hospital*	Denver	G. B. Packard	5,783	.....	96	43	3	7/1	3	40
University of Colorado Medical Center										
Colorado General Hospital*	Denver	J. M. Foster	704	2,080	33	25	12	7/1	4	75
Denver General Hospital*[1]	Denver	G. D. Ellis	1,503	3,498	127	101	5	7/1	4	75
Corwin Hospital*	Pueblo, Colo.	S. B. Potter	711	8,500	18	..	2	7/1	3	75
Bridgeport Hospital*	Bridgeport, Conn.	M. L. Cheney	3,877	.....	69	33	2	7/1	3	100
Hartford Hospital*[1]	Hartford, Conn.	W. A. Standish	4,688	228	60	45	10	7/1	4	50
St. Francis Hospital*	Hartford, Conn.	B. B. Landry	3,456	487	90	29	3	7/1	3	75
New Britain General Hospital*[1]	New Britain, Conn.	B. B. Clark	3,339	.....	66	33	3	7/1	3	75
Grace New Haven Community Hospital										
Grace Unit*	New Haven, Conn.	R. Nichols	1,473	731	90	7	3	7/1	3	58
New Haven Unit (University Service)*[1]	New Haven, Conn.	G. Lindskog	2,273	8,506	73	58	10	7/1	4	40
Hospital of St. Raphael*[1]	New Haven, Conn.	W. F. Verdi	3,133	320	111	26	7	7/1	3	75
Waterbury Hospital*[1]	Waterbury, Conn.	A. A. Johnson	3,809	2,008	91	45	4	7/1	3	100
Delaware Hospital*	Wilmington, Del.	L. J. Jones	1,853	4,173	63	41	4	7/1	4	90
Memorial Hospital*[1]	Wilmington, Del.	J. G. Spackman	1,709	1,449	53	35	4	7/1	3	110
Central Dispensary and Emergency Hospital*[1]	Washington, D. C.	J. H. Lyons	2,967	2,920	65	30	11	7/1	4	...
Doctors Hospital*[1]	Washington, D. C.	C. S. White	2,329	.....	32	22	3	7/1	3	100
Gallinger Municipal Hospital*[1]	Washington, D. C.	P. A. Reed	1,463	8,171	61	25	6	7/1	4	100
Garfield Memorial Hospital*[1]	Washington, D. C.	....	1,904	2,760	41	33	..	....	3	...
Georgetown University Hospital*	Washington, D. C.	R. J. Coffey	3,401	5,130	68	39	28	7/1	4	25
George Washington University Hospital*[1]	Washington, D. C.	B. B. Blades	982	1,105	..	..	6	7/1	4	50
Providence Hospital*	Washington, D. C.	P. S. Putzki and F. R. Sanderson	1,629	5,103	17	7	4	7/1	4	75
Duval Medical Center*	Jacksonville, Fla.	E. Jelks	1,090	.....	49	22	4	7/1	3	125
St. Vincent's Hospital*	Jacksonville, Fla.	F. J. Waas	1,429	4,770	18	7	2	7/1	3	100
Jackson Memorial Hospital*[1]	Miami, Fla.	W. C. Jones	5,110	13,097	149	72	12	7/1	3	60
Crawford W. Long Memorial Hospital*[1]	Atlanta, Ga.	C. B. Stewart	3,656	253	40	9	10	7/1	3	75
Grady Memorial Hospital*[1]	Atlanta, Ga.	I. Ferguson	3,787	38,152	185	57	25	7/1	4	20
University Hospital*	Augusta, Ga.	J. H. Sherman	2,625	2,552	72	24	12	7/1	3	40
Emory University Hospital*	Emory University, Ga.	D. C. Elkin	4,017	.....	30	20	9	7/1	3	50
American Hospital*[1]	Chicago	M. Thorek	2,251	161	98	49	4	7/1	3	50
Augustana Hospital*	Chicago	N. M. Percy	3,174	3,526	85	54	7	7/1	4	50
Chicago Memorial Hospital*	Chicago	J. Van Prohaska	1,085	2,100	21	16	2	7/1	3	200
Children's Memorial Hospital[1]	Chicago	W. J. Potts	2,375	3,356	31	29	7	1/1, 7/1	*	75
Cook County Hospital*[1]	Chicago	K. A. Meyer	19,421	21,636	1,209	149	28	1/1, 7/1	4	32
Grant Hospital*	Chicago	L. Seed	1,904	5,341	44	31	2	7/1	3	100
Illinois Masonic Hospital*[1]	Chicago	P. Shambaugh	1,286	7,158	18	12	4	1/1, 7/1	3	50
Lutheran Deaconess Home and Hospital*[1]	Chicago	J. D. Koucky	3,436	.....	52	29	2	7/1	3	100
Mercy Hospital-Loyola Univ. Clinics*[1]	Chicago	H. A. Oberhelman	1,794	4,209	60	27	12	7/1	4	25
Michael Reese Hospital*[1]	Chicago	N. N. Crohn	3,611	4,909	15	8	7	7/1	4	25
Mount Sinai Hospital*	Chicago	J. T. Gault	3,445	8,767	88	20	3	7/1	3	50
Passavant Memorial Hospital*[1]	Chicago	L. Davis	3,011	14,448	41	27	4	7/1	4	...
Presbyterian Hospital*	Chicago	E. M. Miller	2,533	5,106	64	44	15	....	4	25
Provident Hospital*	Chicago	T. C. Raines	1,220	4,089	40	29	3	7/1	3	50
Research and Educational Hospital*[1]	Chicago	W. H. Cole	969	12,166	37	33	4	7/1	4	55
St. Elizabeth Hospital*	Chicago	M. G. Luken	3,180	.....	14	..	3	....	3	60
St. Luke's Hospital*[1]	Chicago	F. L. McMillan	3,932	.....	100	59	14	7/1	4	25
St. Mary of Nazareth Hospital*	Chicago	T. M. Larkowski	5,037	167	34	12	6	7/1	3	100
University of Chicago Clinics*	Chicago	L. R. Dragstedt	1,933	18,430	54	37	7	7/1	4	25
Wesley Memorial Hospital*[1]	Chicago	R. W. McNealy	2,229	.....	15	10	7	7/1	4	25
Evanston Hospital*	Evanston, Ill.	F. Christopher	940	1,062	24	17	3	7/1	4	50
St. Francis Hospital*	Evanston, Ill.	J. J. Fahey	3,809	2,236	55	35	4	7/1	3	75
West Suburban Hospital*	Oak Park, Ill.	J. J. Theobald	2,108	1,986	71	36	4	7/1	3	150
St. Francis Hospital*[1]	Peoria, Ill.	C. D. Branch	1,817	5,914	18	8	2	7/1	*	100
Clinic Hospital	Bluffton, Ind.	....	.....	.....	..	..	..	....	3	...
Indianapolis General Hospital*	Indianapolis	F. W. Taylor	1,423	7,579	89	43	5	7/1	3	80
Indiana University Medical Center*[1]	Indianapolis	H. J. Schumacker	1,198	1,233	74	52	10	7/1	4	83.33
Methodist Hospital*[1]	Indianapolis	F. B. Ramsey	3,838	2,930	103	27	6	....	3	200
St. Elizabeth Hospital*	LaFayette, Ind.	F. A. Loop	2,107	1,258	25	14	6	7/1	3	100
Iowa Methodist Hospital*[1]	Des Moines, Iowa	J. B. Priestley	1,725	.....	45	30	5	7/1	3	75
Unversity Hospitals*[1]	Iowa City	N. Womack	3,276	3,517	135	101	27	....	4	50
University of Kansas Medical Center*	Kansas City, Kan.	P. Schafer	1,008	3,982	54	40	6	7/1	4	100
Wesley Hospital*[1]	Wichita, Kan.	L. K. Crumpacker	1,571	.....	6	3	3	7/1	3	150
St. Joseph's Hospital*	Lexington, Ky.	F. W. Rankin	2,069	850	50	18	7	7/1	3	100
Louisville General Hospital*[1]	Louisville, Ky.	R. A. Griswold	1,354	14,477	81	35	20	7/1	4	45
Norton Memorial Infirmary*	Louisville, Ky.	K. A. Fischer	1,730	.....	29	16	2	7/1	*	75
St. Joseph Infirmary*	Louisville, Ky.	J. D. Hancock	2,548	2,355	80	43	10	7/1	4	75
Charity Hospital of Louisiana*[1]	New Orleans	L. J. O'Neil	8,655	80,612	443	146	36	7/1	4	25
Ochsner Foundation Hospital*	New Orleans	A. Ochsner	1,028	7,913	37	31	20	Varies	3	125
Southern Baptist Hospital*[1]	New Orleans	E. L. Irwin	2,173	.....	7	..	2	7/1	3	150
Touro Infirmary*[1]	New Orleans	J. D. Rives	2,925	7,053	52	33	6	7/1	3	17.50
Shreveport Charity Hospital*	Shreveport, La.	J. E. Heard	2,155	7,512	74	29	12	7/1	3	60
Maine General Hospital*	Portland, Me.	I. M. Webber	1,806	3,137	66	33	6	7/1	3	50
Baltimore City Hospitals*[1]	Baltimore	O. C. Brantigan	2,022	4,211	102	80	12	7/1	4	15
Bon Secours Hospital*	Baltimore	G. Stewart	803	3,001	14	7	3	7/1	3	75
Church Home and Hospital*[1]	Baltimore	T. S. Cullen	3,380	1,448	34	36	6	7/1	3	35
Franklin Square Hospital*	Baltimore	H. E. Wilgis	2,774	3,514	24	18	6	7/1	4	50
Johns Hopkins Hospital*	Baltimore	A. Blalock	3,382	52,388	109	70	11	7/1	4	41.66
Maryland General Hospital*[1]	Baltimore	R. F. Chenowith	3,334	1,718	64	15	7	7/1	3	50
Mercy Hospital*[1]	Baltimore	W. D. Wise	2,906	5,923	80	28	6	7/1, 9/1	4	50
Provident Hospital and Free Dispensary*	Baltimore	S. McLanahan	1,125	9,412	58	7	4	7/1	3	100
St. Agnes Hospital*	Baltimore	G. A. Stewart	1,607	457	37	19	6	7/1	3	75
Sinai Hospital*	Baltimore	H. M. Kern	2,367	2,400	44	25	7	7/1	4	25
South Baltimore General Hospital*[1]	Baltimore	O. S. Lloyd	2,111	7,178	50	22	6	7/1	3	120
Union Memorial Hospital*	Baltimore	S. Mc. Lanahan	3,452	4,708	90	43	10	7/1	4	20
University Hospital*[1]	Baltimore	C. R. Edwards	2,344	10,481	48	16	12	7/1	4	75
West Baltimore General Hospital*	Baltimore	W. E. Gilmore	1,224	1,503	37	14	5	7/1	3	60
Beverly Hospital*	Beverly, Mass.	P. P. Johnson	2,152	6,101	43	34	5	7/1	3	50
Beth Israel Hospital*	Boston	J. Fine	2,215	6,540	59	30	8	7/1	4	41.66
Boston City Hospital*[1]	Boston	J. A. Shortell	10,500	46,080	458	86	68	7/1	3-4	90
Carney Hospital*	Boston	A. Mc K. Fraser and W. E. Browne	1,088	6,100	48	20	7	7/1	3	50
Children's Hospital*[1]	Boston	R. Gross	2,809	11,240	..	23	12	....	*	...

Numerical and other references will be found on page 1215.

26. SURGERY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Massachusetts General Hospital*	Boston	.....	.....	.....	..	..	..	....	4	...
Massachusetts Memorial Hospital*[1]	Boston	R. H. Smithwick	4,300	3,412	54	32	13	7/1, 10/1	4	30
New England Center Hospital [1]	Boston	C. S. Welch	320	5,537	15	10	10	7/1	4	50
New England Hospital for Women and Children*[1]	Boston	G. E. Rochford	1,620	1,727	15	9	4	1/1	3	50
Peter Bent Brigham Hospital*	Boston	F. D. Moore	2,729	21,081	80	56	16	7/1	4	...
St. Elizabeth's Hospital*	Boston	J. W. Spellman	2,9.5	7,671	76	21	4	7/1	3	75
Mount Auburn Hospital*[1]	Cambridge, Mass.	S. Fraser	1,746	1,575	65	36	4	7/1	3	50
Truesdale Hospital*[1]	Fall River, Mass.	.....	1,9?2	9.5	51	29	..	....	*	...
Newton-Wellesley Hospital*	Newton, Mass.	R. I. Smith	2,806	2,044	64	23	3	7/1	3	100
Salem Hospital*	Salem, Mass.	.....	.....	.....	..	..	..	....	*	...
Springfield Hospital*[1]	Springfield, Mass.	R. G. Mace	5,822	3,180	112	50	10	7/1	3	50
Memorial Hospital*	Worcester, Mass.	B. C. Wheeler	3,028	.....	52	33	8	7/1	3	100
St. Vincent Hospital*	Worcester, Mass.	W. F. Lynch	2,451	.....	51	22	9	7/1	4	41.67
St. Joseph's Mercy Hospital*[1]	Ann Arbor, Mich.	H. Beebe	933	12,865	17	15	5	7/1	3	125
University Hospital*[1]	Ann Arbor, Mich.	F. A. Coller	2,169	11,264	83	61	72	7/1	4	130.00
Leila Y. Post Montgomery Hospital*	Battle Creek, Mich.	R. L. Mustard	929	2,704	7	2	4	....	3	150
Alexander Blain Hospital	Detroit	A. W. Blain	1,706	14,539	39	15	7	7/1	3	100
Charles Godwin Jennings Hospital*[1]	Detroit	J. B. Hartzell	.....	.....	..	..	2	7/1	3	250
City of Detroit Receiving Hospital*[1]	Detroit	C. G. Johnston	3,455	17,229	270	211	22	7/1	3	180.08
Detroit Memorial Hospital*	Detroit	.....	.....	.....	..	..	..	....	3	...
Evangelical Deaconess Hospital*[1]	Detroit	E. C. Baumgarten	4,380	143	33	10	3	7/1	3	125
Grace Hospital*[1]	Detroit	C. S. Kennedy	5,985	.....	74	30	17	7/1	4	75
Harper Hospital*[1]	Detroit	W. D. Barrett	3,500	2,855	72	22	18	7/1	4	110
Henry Ford Hospital*[1]	Detroit	R. D. McClure	8,657	130,085	168	102	63	7/1	4	200
Mt. Carmel Mercy Hospital*[1]	Detroit	N. B. Kalder	3,050	.....	46	21	11	7/1	3	150
Providence Hospital*	Detroit	R. V. Walker	5,406	.....	83	37	9	....	3	140
St. Joseph's Mercy Hospital*	Detroit	D. J. Leithauser	1,444	134	21	4	4	7/1	3	150
Wayne County General Hosp. and Infirmary*[1]	Eloise, Mich.	A. Z. Howard	3,451	10,378	130	50	10	7/1	3	235
Hurley Hospital*[1]	Flint, Mich.	A. H. Kretchmar	1,807	.....	28	7	6	7/1	3	135
Blodgett Memorial Hospital*	Grand Rapids, Mich.	C. H. Frantz	1,721	.....	46	26	3	7/1	3	200
Butterworth Hospital*	Grand Rapids, Mich.	M. B. Tidy	2,462	379	50	35	5	....	4	...
St. Mary's Hospital*[1]	Grand Rapids, Mich.	J. W. Logie	3,764	1,290	94	41	8	7/1	3	125
Highland Park General Hospital*[1]	Highland Park, Mich.	F. J. Witter	1,482	414	31	14	3	7/1	3	150
Bronson Methodist Hospital*[1]	Kalamazoo, Mich.	M. Peelen	2,175	2,818	45	29	3	7/1	3	150
Pontiac General Hospital*[1]	Pontiac, Mich.	C. G. Burke	3,539	6,903	47	29	5	7/1	3	75
Saginaw General Hospital*[1]	Saginaw, Mich.	H. M. Bishop	1,087	1,992	5	3	3	7/1	3	85
Minneapolis General Hospital*[1]	Minneapolis	A. A. Zierold	985	6,152	98	67	10	1/1, 7/1	3	125
Northwestern Hospital*[1]	Minneapolis	E. Benjamin	3,861	.....	71	37	3	7/1	*	150
St. Barnabas Hospital*[1]	Minneapolis	W. G. Schaefer	1,073	.....	17	11	2	1/1	3	125
University of Minnesota Hospitals*[1]	Minneapolis	O. Wangensteen	1,300	7,848	73	56	37	....	4	125
Mayo Foundation	Rochester, Minn.	J. T. Priestley	.....	.....	..	..	100	Varies	3	92.50
Ancker Hospital*[1]	St. Paul	E. M. Jones	2,183	6,176	103	65	9	3/1	4	91.50
Charles T. Miller Hospital*[1]	St. Paul	E. M. Jones and H. B. Zimmermann	1,581	1,538	65	41	2	7/1	3	115
Lutheran Hospital	Vicksburg, Miss.	W. H. Parsons	1,675	.....	16	8	4	7/1	3	50
Kansas City General Hospital No. 1*	Kansas City, Mo.	H. C. Lapp	1,252	4,674	75	40	10	7/1	3	50
Research Hospital*[1]	Kansas City, Mo.	C. J. Hunt	3,733	616	62	34	6	7/1	3	100
St. Joseph Hospital*	Kansas City, Mo.	V. T. Williams	5,519	1,000	105	61	3	7/1	3	150
St. Luke's Hospital*	Kansas City, Mo.	P. E. Engel	1,306	2,358	25	25	4	7/1	3	75
Barnes Hospital*	St. Louis	E. A. Graham	6,168	16,884	156	116	45	7/1	4	25
Homer G. Phillips Hospital*[1]	St. Louis	R. Elman	2,330	8,210	157	32	14	7/1	4	98
Jewish Hospital*[1]	St. Louis	J. G. Robstein	2,359	2,652	51	24	4	7/1	3	50
Missouri Baptist Hospital*[1]	St. Louis	G. Bendleman	1,901	.....	57	18	5	7/1	3	70
Missouri Pacific Hospital	St. Louis	O. B. Zeinert	.....	.....	..	..	..	....	3	...
St. John's Hospital*	St. Louis	W. P. Glennon	3,311	816	79	41	4	7/1	3	60
St. Louis City Hospital*[1]	St. Louis	E. Bricker and L. V. Mulligan	3,845	8,113	296	112	15	7/1	4	...
St. Mary's Group of Hospitals*[1]	St. Louis	J. W. Stewart	2,753	5,380	108	53	13	7/1	4	35
Bishop Clarkson Memorial Hospital*[1]	Omaha	J. D. Bisgard	3,845	450	38	18	1	....	3	100
Creighton Memorial-St. Joseph's Hospital*	Omaha	C. McMartin	3,700	3,050	64	25	3	7/1	3	100
University of Nebraska Hospital*[1,51]	Omaha	H. H. Davis	534	1,400	29	23	9	7/1	3	75
Atlantic City Hospital*	Atlantic City, N. J.	D. B. Allman	2,153	20,762	73	20	1	7/1	3	50
Cooper Hospital*[1]	Camden, N. J.	I. E. Deibert	4,045	6,409	140	75	5	7/1	3	83.33
West Jersey Hospital*	Camden, N. J.	J. H. Wesley	.....	.....	..	..	2	7/1	3	125
Jersey City Hospital (Private Service)*[1]	Jersey City, N. J.	C. B. Kelly	3,083	16,805	126	22	15	Varies	3	35
Burlington County Hospital	Mount Holly, N. J.	T. J. Summey	1,114	2,238	33	22	2	7/1	3	100
Hospital of St. Barnabas and for Women and Children*[1]	Newark, N. J.	H. A. Schulte	4,309	9,767	..	..	4	7/1	3	100
Newark Beth Israel Hospital*	Newark, N. J.	A. B. Abrams	2,984	1,335	67	21	3	7/1	3	50
Paterson General Hospital*[1]	Paterson, N. J.	L. E. Deyoe	2,674	1,310	95	25	3	7/1	3	75
Albany Hospital*[1]	Albany, N. Y.	E. H. Campbell	2,286	2,009	71	32	5	7/1	4	41.66
Binghamton City Hospital*[1]	Binghamton, N. Y.	C. D. Squires	2,865	8,726	82	39	8	7/1	3	...
Beth El Hospital*[1]	Brooklyn	H. Neuhof	2,230	12,183	58	21	3	7/1	3	100
Brooklyn Cancer Institute	Brooklyn	Dr. Siris	700	10,406	198	42	2	1/1, 7/1	*	50
Brooklyn Hospital*[1]	Brooklyn	W. H. Field	2,492	5,317	62	28	6	7/1	3	25
Coney Island Hospital*[1]	Brooklyn	J. E. Hammett	2,083	21,188	95	20	7	7/1	*	80
Cumberland Hospital*[1]	Brooklyn	J. J. Gainey	3,207	19,033	114	30	5	7/1	4	80
Jewish Hospital*[1]	Brooklyn	H. Louria and L. Berger	3,073	7,675	42	11	4	7/1	4	30
Kings County Hospital*	Brooklyn	J. Tenopyr and P. Lear	10,687	48,410	376	145	10	1/1, 7/1	4	80
Long Island College Hospital*	Brooklyn	E. J. Browder	2,174	10,341	52	19	4	7/1	4	50
Maimonides Hospital*[1]	Brooklyn	O. B. Ripstein	3,256	4,028	82	25	8	7/1	3	75
Methodist Hospital*[1]	Brooklyn	P. A. Renaud, Sr. and S. G. Clark, Sr.	2,391	7,308	64	31	5	7/1	3	25
St. Catherine's Hospital*[1]	Brooklyn	J. L. Pfeifer and J. Smith, Jr.	.....	5,000	50	23	4	7/1	3	75
St. John's Hospital*[1]	Brooklyn	M. N. Foote	1,631	2,898	53	19	3	7/1	3	95
Wyckoff Heights Hospital*[1]	Brooklyn	P. A. Zoller	1,725	2,058	54	10	5	7/1	3	100
Buffalo General Hospital*	Buffalo	J. R. Paine	2,804	2,428	76	41	14	7/1	4	25
Edward J. Meyer Memorial Hospital*[1]	Buffalo	J. D. Stewart	1,404	4,226	100	37	10	7/1	4	100
Millard Fillmore Hospital*	Buffalo	H. N. Kenwell	2,451	400	47	17	11	7/1	3	50
Clifton Springs Sanitarium and Clinic [1]	Clifton Springs, N. Y.	W. C. Eikner	1,259	3,086	14	7	3	....	3	50
Mary Imogene Bassett Hospital*[1]	Cooperstown, N. Y.	M. A. McIver	831	7,515	19	11	2	7/1	3	83.33
Flushing Hospital and Dispensary*[1]	Flushing, N. Y.	C. N. Baker	4,298	11,322	80	29	3	7/1	3	...
Meadowbrook Hospital*[1]	Hempstead, N. Y.	A. S. Warinner	1,083	.....	70	55	2	7/1	4	104
Jamaica Hospital*[1]	Jamaica, N. Y.	J. D. Hallinan	1,428	2,175	33	11	3	7/1	3	150
Mary Immaculate Hospital*[5]	Jamaica, N. Y.	F. N. Dealy	1,008	980	62	13	3	7/1	3	75

Numerical and other references will be found on page 1215.

26. SURGERY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst. Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend (Month)
Queens General Hospital*[1]	Jamaica, N. Y.	C. L. Davidson	2,763	21,060	312	141	5	7/1	4	...
Charles S. Wilson Memorial Hospital*	Johnson City, N. Y.	D. Smith	3,537	.....	49	20	6	7/1	3	125
Nassau Hospital*[1]	Mineola, N. Y.	O. C. Hudson	2,288	.....	10	1	1	7/1	3	110
Mount Vernon Hospital*	Mount Vernon, N. Y.	N. W. Cornell	1,888	684	50	21	2	7/1	3	125
New Rochelle Hospital*	New Rochelle, N. Y.	G. C. Adie	4,225	2,423	15	5	4	7/1	3	125
Bellevue Hospital										
Division I—Columbia University*[1]	New York City	F. Berry	2,071	10,225	93	29	7	1/1, 7/1	3	80
Division II—Cornell University*[1]	New York City	W. DeWiandrus	2,032	12,336	70	30	8	1/1, 7/1	4	80
Division III—New York University*[1]	New York City	J. H. Mulholland	2,604	10,481	91	19	15	1/1, 7/1	4	80
Division IV—Open Division*[1]	New York City	W. J. Hinton	1,636	8,756	77	36	7	1/1, 7/1	4	80
Beth Israel Hospital*[1]	New York City	L. Ginzburg	1,821	2,791	28	8	3	7/1	3	50
Bronx Hospital*[1]	New York City	J. A. Landy	4,182	16,682	87	30	9	7/1	3	75
Flower and Fifth Avenue Hospitals*[1]	New York City	J. M. Winfield	2,003	4,929	31	4	11	7/1	4	...
Fordham Hospital*[1]	New York City	L. Marton and A. B. Sullivan	1,885	8,229	153	35	10	7/1	3	80
French Hospital*	New York City	H. B. Keyes	2,196	14,611	49	17	3	7/1	3	100
Goldwater Memorial Hospital*[1,65]	New York City	W. H. Barber	715	465	130	32	9	7/1	4	70
Harlem Hospital*[1]	New York City	L. T. Wright	2,234	23,275	156	31	9	7/1	4	80
Lenox Hill Hospital*[1]	New York City	O. C. Pickardt and F. M. Donohue	2,093	6,369	64	22	6	Varies	3	50
Lincoln Hospital*[1]	New York City	F. H. Amendola	3,889	42,384	219	60	12	7/1	3	50
Metropolitan Hospital*[1]	New York City	J. M. Winfield	2,383	7,627	115	26	4	7/1	4	80
Montefiore Hospital for Chronic Diseases*[1]	New York City	S. Standard	1,069	.....	86	36	7	1/1, 7/1	3	50
Morrisania City Hospital*[1]	New York City	G. Milani and P. Daley	1,213	4,280	60	42	3	7/1	4	60
Mount Sinai Hospital*	New York City	R. Colp and J. H. Garlock	11,803	14,013	158	62	21	7/1	4	50
New York City Hospital*[1]	New York City	W. M. Weeden	2,613	11,252	109	14	4	7/1	3	80
New York Hospital*[1]	New York City	F. Glenn	2,965	38,206	35	46	30	7/1	4	25
New York Polyclinic Medical School and Hospital*	New York City	R. E. Brennan	1,807	4,324	18	6	12	7/1	3	50
Presbyterian Hospital*[1]	New York City	G. H. Humphreys	3,530	48,531	110	..	20	1/1, 7/1	4	41.66
Roosevelt Hospital*[1]	New York City	W. C. White and H. W. Cave	3,732	8,462	122	37	19	7/1	4	25
St. Clare's Hospital*	New York City	J. L. Madden	3,644	8,036	107	49	6	7/1	3	25
St. Luke's Hospital*	New York City	W. F. MacFee	3,678	22,247	97	43	15	7/1	4	50
St. Vincent's Hospital*[1]	New York City	L. M. Rousselot	3,027	14,927	112	40	16	7/1	4	50
University Hospital*	New York City	J. W. Hinton	3,551	17,112	101	34	17	7/1	4	80
United Hospital*	Port Chester, N. Y.	J. V. Hibbard	1,980	997	36	19	2	7/1	•	100
Genesee Hospital*[1]	Rochester, N. Y.	S. J. Stabins	1,942	1,553	49	26	8	7/1	4	30
Highland Hospital*[1]	Rochester, N. Y.	W. Callhan	.....	.....	..	..	6	7/1	3	100
Rochester General Hospital*[1]	Rochester, N. Y.	W. A. Fenstermacher	3,972	3,166	43	32	9	7/1	3	55
St. Mary's Hospital*[1]	Rochester, N. Y.	N. J. Pfaff	6,494	5,129	64	28	9	7/1	3	125
Strong Memorial-Rochester Municipal Hosp.*[1]	Rochester, N. Y.	J. J. Morton	2,229	11,547	129	90	28	7/1	4	41.66
Ellis Hospital*[1]	Schenectady, N. Y.	S. F. MacMillan	4,508	4,500	45	28	5	7/1	3	100
Hospital of the Good Shepherd*[1]	Syracuse, N. Y.	A. Rafll	3,278	758	67	30	8	7/1	3	125
Grasslands Hospital*[1]	Valhalla, N. Y.	G. C. Adie	431	4,265	43	25	4	7/1	3	125
Charlotte Memorial Hospital*[1]	Charlotte, N. C.	T. D. Sparrow	1,646	7,552	31	18	3	7/1	3	60
Duke Hospital*[1]	Durham, N. C.	D. Hart	2,044	7,790	24	12	23	7/1	4	83.33
Lincoln Hospital*	Durham, N. C.	H. M. Schiebel	701	927	28	11	2	7/1	3	75
Watts Hospital*[1]	Durham, N. C.	H. M. Schiebel	2,831	15,535	41	19	5	7/1	3	50
North Carolina Baptist Hospital*[1]	Winston-Salem, N. C.	H. H. Bradshaw	1,288	6,078	22	13	13	7/1	4	41.66
Children's Hospital[1]	Akron, Ohio	S. A. Schlueter	1,002	195	14	6	1	7/1	•	100
City Hospital*	Akron, Ohio	......	2,500	775	67	28	9	7/1	4	100
Peoples Hospital*[1]	Akron, Ohio	S. A. Schlueter	1,558	700	20	9	10	7/1	4	100
St. Thomas Hospital*	Akron, Ohio	H. H. Musser	1,444	704	15	4	3	....	3	125
Aultman Hospital*[1]	Canton, Ohio	G. W. Zeiders	4,301	196	88	45	6	7/1	3	75
Mercy Hospital*	Canton, Ohio	A. W. Warren	4,617	85	75	25	9	7/1	4	100
Christ Hospital*	Cincinnati	D. E. Earley	2,047	3,268	47	17	7	7/1	3	90
Cincinnati General Hospital*[1]	Cincinnati	B. N. Carter	3,674	25,408	223	153	17	9/1	4	...
Good Samaritan Hospital*[1]	Cincinnati	J. J. Maloney	7,870	1,877	98	30	10	7/1	3	105
Jewish Hospital*	Cincinnati	J. D. Heiman	4,214	309	65	44	8	7/1	4	60
St. Mary's Hospital*	Cincinnati	K. B. Hanson	742	548	35	15	3	7/1	3	105
City Hospital*[1]	Cleveland	C. H. Lenhart	2,727	25,071	246	93	18	7/1	4	60
Cleveland Clinic Hospital[1]	Cleveland	R. S. Dinsmore	2,601	19,787	45	24	13	7/1	3	135
Lutheran Hospital*[1]	Cleveland	J. H. Lazzari	2,724	.....	54	23	8	7/1	4	85
Mount Sinai Hospital*[1]	Cleveland	S. O. Freedlander	1,877	2,490	37	11	4	7/1	4	100
St. Alexis Hospital*[1]	Cleveland	F. A. Spittler	6,305	2,384	106	28	6	7/1	3	75
St. John's Hospital*[1]	Cleveland	J. E. Hannibal	2,034	232	44	17	6	7/1	4	100
St. Luke's Hospital*	Cleveland	D. M. Glover	2,988	3,194	168	40	4	6/2	4	60
St. Vincent Charity Hospital*	Cleveland	H. B. Wright	1,949	12,021	38	7	10	7/1	3	50
University Hospitals*[1]	Cleveland	C. H. Lenhart	4,507	9,305	146	..	19	7/1	4	25
Mount Carmel Hospital*[1]	Columbus, Ohio	W. H. Teachnor	2,074	397	46	17	2	1/1, 7/1	3	135
Ohio State University Hospital*[1]	Columbus, Ohio	R. M. Zollinger	2,029	6,421	73	63	20	7/1	4	50
St. Francis Hospital	Columbus, Ohio	......	.....	.....	..	..	..	....	•	...
White Cross Hospital*	Columbus, Ohio	R. Patton	4,041	.....	78	30	3	7/1	3	100
Miami Valley Hospital*[1]	Dayton, Ohio	M. T. Hoerner	2,381	.....	46	22	5	7/1	3	75
Huron Road Hospital*[1]	East Cleveland, Ohio	H. W. Brown	1,964	.....	69	18	7	7/1	3	75
Lakewood Hospital*	Lakewood, Ohio	N. W. Thiessen	2,904	407	41	13	3	7/1	3	100
St. Rita's Hospital*	Lima, Ohio	C. H. Leech	3,748	2,786	37	18	5	7/1	3	100
Maumee Valley Hospital*	Toledo, Ohio	E. J. McCormick	533	3,386	52	30	5	7/1	3	125
Mercy Hospital*	Toledo, Ohio	E. L. Gaspari and H. L. Hauman	5,287	612	109	43	4	7/1	3	125
St. Vincent's Hospital*[1]	Toledo, Ohio	F. M. Douglass, Sr.	3,965	858	87	36	5	7/1	3	...
Toledo Hospital*[1]	Toledo, Ohio	G. H. Reams	2,841	5,267	51	30	4	7/1	3	100
St. Elizabeth's Hospital*[1]	Youngstown, Ohio	L. G. Coe	1,602	227	29	12	7	7/1	4	115
Youngstown Hospital*[1]	Youngstown, Ohio	A. E. Brant	3,850	2,395	79	40	12	7/1	4	75
University Hospitals*	Oklahoma City	L. J. Starry	816	4,641	39	29	4	7/1	3	35
Hillcrest Memorial Hospital*[1]	Tulsa, Okla.	V. K. Allen	1,690	.....	43	17	5	7/1	3	75
Emanuel Hospital*[1]	Portland, Ore.	J. A. Gius	1,541	.....	18	14	3	7/1	3	75
St. Vincent's Hospital*	Portland, Ore.	D. B. Seabrook	4,520	.....	80	35	4	7/1	3	75
University of Oregon Medical School Hospitals and Clinics*[1]	Portland, Ore.	W. K. Livingston	1,272	2,023	75	54	4	7/1	4	75
Abington Memorial Hospital*[1]	Abington, Pa.	D. B. Pfeiffer	2,670	2,252	60	28	3	7/1	3	50
Allentown Hospital*	Allentown, Pa.	R. L. Schaeffer	3,116	3,340	15	..	3	7/1	3	100
St. Luke's Hospital*[1]	Bethlehem, Pa.	W. L. Estes, Jr.	3,754	427	78	30	4	7/1	3	130
Bradford Hospital	Bradford, Pa.	......	.....	.....	..	..	..	....	•	...

Numerical and other references will be found on page 1215.

26. SURGERY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res., and Internships Offered*	Beginning of Service (Mo.)	Length of Approved Program (Years)	Beginning Salary (Month)
Bryn Mawr Hospital[6]	Bryn Mawr, Pa.	A. E. Billings	604	.....	39	30	2	7/1	3	75
George F. Geisinger Memorial Hospital and Clinic[6]	Danville, Pa.	H. L. Foss	2,658	11,432	48	27	4	7/1	3	75
Easton Hospital[6]	Easton, Pa.	T. C. Zollick, Jr.	1,820	1,301	25	11	2	1/1	*	100
Hamot Hospital[6]	Erie, Pa.	A. F. Jonas	1,953	821	67	41	3	7/1	3	150
St. Vincent's Hospital[6]	Erie, Pa.	L. A. Lasher	2,783	704	49	32	3	7/1	3	50
Harrisburg Hospital[6]	Harrisburg, Pa.	F. A. Kunkel	3,487	13,634	105	62	5	7/1	3	100
Harrisburg Polyclinic Hospital	Harrisburg, Pa.	.....	.....	.....	.....	.....	.....	.....	4	...
St. Joseph's Hospital[6]	Lancaster, Pa.	J. L. Aller, Jr.	4,315	7,906	116	67	3	7/1	3	150
Episcopal Hospital[6]	Philadelphia	I. M. Boykin	2,707	11,308	79	60	4	.....	3	...
Germantown Dispensary and Hospital[6]	Philadelphia	S. D. Wexler	2,287	5,745	91	57	2	7/1	4	50
Graduate Hosp. of the Univ. of Pennsylvania[6]	Philadelphia	W. Bates and H. S. Heathcote	2,081	8,713	49	29	9	7/1	3	...
Hahnemann Hospital[6]	Philadelphia	W. L. Martin	3,729	9,941	177	65	6	8/1	4	50
Hospital of the Univ. of Pennsylvania[6,21]	Philadelphia	I. S. Ravdin	3,659	5,740	73	57	18	Varies	4	100
Jefferson Medical College Hospital[6]	Philadelphia	T. A. Stoddard and J. H. Gibbon	2,820	9,720	94	61	17	.....	4	...
Jewish Hospital[6]	Philadelphia	.....	3,157	.....	119	59	5	7/1	3	50
Lankenau Hospital[6]	Philadelphia	J. M. Beaver and G. C. Engel	2,841	12,906	70	51	6	7/1	4	50
Mount Sinai Hospital[6]	Philadelphia	B. Lipshutz and L. Kaplan	1,847	12,242	55	22	2	7/1	3	50
Pennsylvania Hospital[6]	Philadelphia	J. B. Fish	1,662	10,255	73	23	6	Varies	4	50
Philadelphia General Hospital[6]	Philadelphia	.....	2,792	.....	105	...	7	7/1	3	75
Presbyterian Hospital[6]	Philadelphia	Dr. Williamson and Dr. Bates	2,187	5,660	58	35	4	7/1	3	...
Temple University Hospital[6]	Philadelphia	W. E. Burnett	2,080	7,556	77	46	7	7/1	3	50
Woman's Hospital[6]	Philadelphia	Dr. Smyth	951	3,169	11	10	2	7/1	3	...
Children's Hospital [7]	Pittsburgh	F. W. Meredith and G. V. Foster	1,598	3,758	17	10	1	7/1	*	41.67
Mercy Hospital[6]	Pittsburgh	H. H. Donaldson	1,470	3,556	69	36	5	7/1	3	100
Montefiore Hospital[6]	Pittsburgh	H. Frankenstein	1,419	2,160	61	16	3	7/1	3	50
Pittsburgh Hospital[6]	Pittsburgh	J. D. Singley	1,945	3,726	63	16	2	8/1	3	100
Pittsburgh Medical Center[6,22]	Pittsburgh	F. W. Meredith	1,555	1,643	28	14	10	7/1	3	41.67
St. Francis Hospital[6]	Pittsburgh	J. R. Wagner	2,455	1,803	81	39	4	7/1	3	100
Western Pennsylvania Hospital[6]	Pittsburgh	L. H. Landon	4,386	1,954	80	23	5	7/1	4	100
Robert Packer Hospital[6]	Sayre, Pa.	D. Guthrie	2,598	2,632	95	64	5	7/1	4	150
Williamsport Hospital[6]	Williamsport, Pa.	A. F. Harod	1,250	12,044	25	6	2	7/1	3	100
York Hospital[6]	York, Pa.	J. F. Bacon	2,331	641	56	44	3	7/1	3	100
Rhode Island Hospital[6]	Providence, R. I.	J. M. Brandley	4,610	8,350	253	95	6	7/1	3	50
Roper Hospital[6]	Charleston, S. C.	F. E. Kredel	2,945	4,588	61	34	6	7/1	4	50
Columbia Hospital[6]	Columbia, S. C.	G. H. Bunch	2,257	6,686	91	34	7	7/1	3	75
Baroness Erlanger Hospital[6]	Chattanooga, Tenn.	W. D. L. Record	4,687	3,747	72	28	12	7/1	4	75
Knoxville General Hospital[6]	Knoxville, Tenn.	C. Smithdeal	3,450	3,841	60	19	2	7/1	3	100
Baptist Memorial Hospital[6]	Memphis, Tenn.	E. G. Kelly	3,357	834	63	22	6	7/1	4	75
John Gaston Hospital[6]	Memphis, Tenn.	H. Wilson	2,159	13,591	87	52	7	7/1	4	...
Methodist Hospital[6]	Memphis, Tenn.	J. A. Crisler	2,044	2,162	27	11	4	7/1	3	75
St. Joseph Hospital[6]	Memphis, Tenn.	A. J. Grolsmyer	1,779	.....	36	5	3	7/1	3	100
George W. Hubbard Hospital of Meharry Medical College[6]	Nashville, Tenn.	M. Walker	980	6,154	31	19	7	7/1	3	100
Nashville General Hospital[6]	Nashville, Tenn.	C. M. Miller	1,420	21,956	60	31	10	7/1	3	50.50
St. Thomas Hospital[6]	Nashville, Tenn.	L. W. Edwards	4,986	.....	78	50	11	7/1	4	150
Vanderbilt University Hospital[6,8]	Nashville, Tenn.	H. Royster	5,227	16,304	111	68	10	7/1	3	75.41
Baylor University Hospital[6]	Dallas, Texas	H. W. Cochran	2,382	1,298	36	13	7	7/1	3	75
Gaston Hospital	Dallas, Texas	J. V. Goode	2,075	1,959	14	9	5	7/1	*	100
Parkland Hospital[6]	Dallas, Texas	C. Moyer	1,231	7,410	56	24	12	7/1	4	50
University of Texas Medical Branch Hosp. John Sealy Hospital[6]	Galveston, Texas	R. M. Moore	980	9,566	61	52	14	7/1	4	75
Hermann Hospital[6]	Houston, Texas	G. Waldron	2,186	1,825	50	27	4	7/1	3	50
Jefferson Davis Hospital[6]	Houston, Texas	M. E. DeBakey	1,559	12,845	86	32	12	7/1	4	75
M. D. Anderson Hospital for Cancer Research	Houston, Texas	.....	.....	.....	...	...	...	.....	*	...
Methodist Hospital[6]	Houston, Texas	L. D. Tuttle	823	74	4	2	2	7/1	*	75
Scott and White Hospital[6]	Temple, Texas	A. C. Scott and C. B. Brindley, Sr.	1,520	.....	45	19	20	.....	3	50
Wichita Falls Clinic Hospital[6]	Wichita Falls, Texas	W. E. Crump	1,050	20,540	9	4	2	.....	3	200
Dr. W. H. Groves Latter-Day Saints Hosp.[6]	Salt Lake City	L. J. Taylor	2,661	.....	88	66	5	7/1	3	75
Holy Cross Hospital[6]	Salt Lake City	C. Gallagher	2,161	.....	67	49	4	7/1	3	75
St. Mark's Hospital[6]	Salt Lake City	M. C. Lindem	2,017	350	69	73	1	7/1	2	100
Salt Lake County General Hospital[6]	Salt Lake City	P. B. Price	1,000	10,977	68	60	6	.....	4	...
Mary Fletcher Hospital[6]	Burlington, Vt.	A. B. Markey	1,124	967	14	9	3	7/1	2	50
Alexandria Hospital[6]	Alexandria, Va.	C. L. Fiter	1,106	.....	29	8	2	7/1	3	87.50
University of Virginia Hospital[6]	Charlottesville, Va.	F. P. Lehman	2,536	6,256	70	20	15	.....	4	41.67
Chesapeake and Ohio Hospital	Clifton Forge, Va.	M. Emmett	1,131	1,387	31	16	4	7/1	3	60
Norfolk General Hospital[6]	Norfolk, Va.	R. L. Payne, Sr.	3,237	3,231	91	21	8	7/1	4	125
Medical College of Virginia Hospital Div.[6]	Richmond, Va.	I. A. Bigger	3,151	6,002	139	34	19	.....	4	...
Jefferson Hospital[6]	Roanoke, Va.	H. H. Trout	2,424	4,047	99	30	5	7/1	*	125
King County Hospital, Unit No. 1 (Harborview)[6]	Seattle	H. N. Harkins	1,821	4,150	59	16	9	7/1	3	90
Virginia Mason Hospital[6]	Seattle	J. W. Baker	1,256	.....	6	7	6	7/1	3	75
Berkley Hospital	Berkley, W. Va.	.....	2,549	15,848	29	30	4	7/1	3	150
Charleston General Hospital[6]	Charleston, W. Va.	J. E. Cannaday and H. A. Bailey	2,758	5,660	39	14	4	7/1	3	100
Chesapeake and Ohio Hospital[6]	Huntington, W. Va.	R. J. Wilkinson	2,706	11,668	36	19	7	.....	4	112
St. Mary's Hospital[6]	Huntington, W. Va.	F. L. Colley	1,781	4,510	60	11	3	7/1	3	100
Laird Memorial Hospital	Montgomery, W. Va.	W. R. Laird	2,054	13,321	45	38	2	7/1	2	150
St. Joseph's Hospital[6]	Parkersburg, W. Va.	.....	.....	.....	...	...	...	.....	3	...
Myers Clinic Hospital [7]	Philippi, W. Va.	H. C. Myers	1,324	1,600	14	10	3	7/1	3	200
Madison General Hospital[6]	Madison, Wis.	J. P. Maier	1,384	.....	52	21	3	7/1	3	50
State of Wisconsin General Hospital[6]	Madison, Wis.	F. R. Schmidt	2,101	6,734	70	53	24	1/1, 7/1	3	75
Columbia Hospital[6]	Milwaukee	P. Rabe	1,140	.....	38	10	5	7/1	3	75
Evangelical Deaconess Hospital[6]	Milwaukee	P. M. Currer	1,018	.....	32	35	5	7/1	3	150
Milwaukee Children's Hospital	Milwaukee	.....	.....	.....	...	...	...	.....	*	...
Milwaukee County Hospital[6]	Milwaukee	C. F. Conroy	3,397	14,151	83	35	15	7/1	3	175.50
Milwaukee Hospital[6]	Milwaukee	I. Schulz	1,502	.....	50	30	4	7/1	3	...
St. Joseph's Hospital[6]	Milwaukee	F. Stratton	4,452	.....	51	15	5	7/1	3	75
Queens Hospital[6]	Honolulu, Hawaii	J. E. Slade	1,341	8,394	15	11	5	7/1	3	75
San Juan City Hospital[6]	San Juan, Puerto Rico	.....	.....	.....	...	...	...	.....	3	...

Numerical and other references will be found on page 1215.

26. SURGERY—Continued

The following services are approved by the Council as offering satisfactory training of one or two years' duration, in preparation for residency training in the surgical specialties. (Ref.: Surgical Residencies, page 1216, this issue.)

Hospitals, 149 Assistant Residencies and Residencies, 408

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
Federal Security Agency									
St. Elizabeth's Hospital[a1]	Washington, D. C.	W. A. Parker	804	7,605	111	75	2	7/1	n
Nonfederal									
City Hospital[a]	Mobile, Ala.	W. R. Meeker	1,007	4,976	35	20	2	7/1	100
St. Joseph's Hospital[a]	Phoenix, Ariz.	P. T. Brown	3,733	.....	32	22	1	7/1	150
Tucson Medical Center[a]	Tucson, Ariz.	L. W. Rudolph	1,876	957	20	18	2	7/1	100
Arkansas Baptist Hospital[a]	Little Rock, Ark.	R. M. Eubanks	6,710	.....	100	32	3	7/1	100
St. Vincent Infirmary	Little Rock, Ark.	H. G. Hollenberg	4,025	.....	49	11	3	7/1	100
Glendale Sanitarium and Hospital[a]	Glendale, Calif.	J. Janzen	2,678	.....	39	21	2	7/1	100
Seaside Memorial Hospital[a1]	Long Beach, Calif.	C. A. Lauer	3,045	.....	51	29	4	7/1	150
California Hospital[a]	Los Angeles	W. H. Olds	2,604	806	27	12	7	7/1	100
Queen of Angels Hospital[a]	Los Angeles	W. J. Sullivan	3,707	549	93	41	3	7/1	100
Santa Fe Coast Lines Hospital[a]	Los Angeles	L. Chaffin	989	.....	16	5	2	7/1	195
Peralta Hospital	Oakland, Calif.	E. G. Clausen	4,365	.....	83	45	3	7/1	125
Collis P. and Howard Huntington Memorial Hospital[a]	Pasadena, Calif.	J. M. Marshall	3,511	.....	57	39	2	7/1	150
Children's Hospital[a1]	San Francisco	A. Kilgore	600	2,235	11	6	1	7/1	50
Mary's Help Hospital[a1]	San Francisco	E. Carlson	2,288	4,567	35	11	2	7/1	150
St. Luke's Hospital[a]	San Francisco	G. D. Delprat	4,461	1,433	41	21	2	7/1	100
St. Mary's Hospital[a]	San Francisco	E. Butler	4,526	2,226	60	20	6	7/1	100
Santa Clara County Hospital	San Jose, Calif.	G. Arminini	655	2,367	59	30	3	7/1	225
Community Hospital of San Mateo County[1]	San Mateo, Calif.	K. Prindle	1,073	3,000	38	19	1	7/1	200
St. John's Hospital[a]	Santa Monica, Calif.	M. H. Rahwin	2,930	700	6	4	1	9/1	150
Children's Hospital[1]	Denver	G. R. Packard	5,944	1,298	26	1	1	7/1	50
Colorado State Hospital[1]	Pueblo, Colo.	E. B. Ley	562	4,795	33	18	3	7/1	275
Lawrence and Memorial Associated Hospitals[a1]	New London, Conn.	F. B. Hartman	2,402	.....	52	7	2	7/1	125
Norwalk Hospital[a]	Norwalk, Conn.	E. C. Beck	1,482	2,130	23	14	2	7/1	125
St. Mary's Hospital[a1]	Waterbury, Conn.	Jackson	3,146	3,714	43	13	3	7/1	150
Sibley Memorial Hospital[a]	Washington, D. C.	P. S. Putzki	4,447	90	49	33	5	7/1	75
Riverside Hospital[1]	Jacksonville, Fla.	E. Jelks	831	7,197	16	9	1	7/1	150
St. Luke's Hospital[a]	Jacksonville, Fla.	K. A. Morris	561	3,985	8	1	2	7/1	125
Orange Memorial Hospital[a1]	Orlando, Fla.	.....	.....	.....	.....	.....	.....	.....	.....
Georgia Baptist Hospital[1]	Atlanta, Ga.	T. C. Davison	1,553	817	26	9	6	7/1	75
Piedmont Hospital[a1]	Atlanta, Ga.	F. W. McRae	2,551	.....	21	11	4	7/1	75
St. Joseph's Infirmary[a]	Atlanta, Ga.	W. P. Nicolson	2,832	1,539	45	21	3	7/1	100
Henrotin Hospital[a1]	Chicago	C. B. Puestow	1,444	.....	8	1	1	7/1	100
Hospital of St. Anthony De Padua[a1]	Chicago	F. B. Glentine	1,490	.....	17	10	3	7/1	150
Illinois Central Hospital[a]	Chicago	C. C. Guy	2,981	12,717	57	10	2	1/1, 7/1	150
Loretto Hospital[a]	Chicago	L. F. Pizak	1,791	.....	21	17	2	7/1	200
Norwegian American Hospital[a]	Chicago	P. Snyder	966	.....	11	7	3	7/1	150
Ravenswood Hospital[a1]	Chicago	H. T. Haver	2,704	2,624	61	30	3	.....	...
St. Anne's Hospital[a]	Chicago	F. F. Fox	1,760	.....	58	36	2	1/1	150
St. Joseph Hospital[a]	Chicago	H. McKenna	1,997	686	12	10	2	7/1	75
Women's and Children's Hospital[a1]	Chicago	E. Girvotas	506	532	3	3	..	7/1	75
Woodlawn Hospital[a]	Chicago	H. P. Jenkins	549	736	17	11	1	7/1	150
Little Company of Mary Hospital[a]	Evergreen Park, Ill.	D. J. Huntington	3,038	.....	9	17	3	7/1	100
St. Vincent's Hospital[a1]	Indianapolis	G. J. Garreau	2,944	2,131	101	33	4	.....	200
Ball Memorial Hospital[a1]	Muncie, Ind.	W. C. Moore	3,670	.....	77	39	3	7/1	100
St. Margaret's Hospital[a]	Kansas City, Kan.	M. Laing	1,920	2,045	36	..	3	7/1	150
St. Francis Hospital[a1]	Wichita, Kan.	W. J. Bermann	3,600	.....	122	35	2	7/1	125
Good Samaritan Hospital[a]	Lexington, Ky.	A. E. Grimes	2,328	1,304	57	15	..	7/1	125
Hotel Dieu, Sisters' Hospital[a]	New Orleans	F. F. Boyce	2,822	.....	82	41	6	7/1	75
Hospital for Women[a]	Baltimore	W. Rienhoff	991	1,550	4	2	5	7/1	85
St. Joseph's Hospital[a1]	Baltimore	W. R. Geraghty	3,606	6,241	39	23	5	7/1	50
Suburban Hospital	Bethesda, Md.	A. L. Riddick	1,349	1,601	20	8	1	7/1	100
Lahey Clinic	Boston	F. H. Lahey	4,234	27,281	61	35	25	Varies	125
Cambridge City Hospital[a]	Cambridge, Mass.	H. E. Groden	1,425	8,111	62	24	2	7/1	75
Lynn Hospital[a]	Lynn, Mass.	C. F. Twomey	3,765	8,295	89	60	2	7/1	75
Malden Hospital	Malden, Mass.	W. E. Gadsby	.....	.....	.....	.....	4	7/1	50
Quincy City Hospital[a]	Quincy, Mass.	A. L. Hanrahan	2,100	737	64	27	2	7/1	125
Worcester City Hospital[a]	Worcester, Mass.	B. F. Andrews	2,982	3,145	109	34	4	4/1	100
Woman's Hospital[a]	Detroit	W. F. Johnston	2,456	.....	39	16	2	7/1	165
Asbury Hospital[a1]	Minneapolis	S. R. Maxeiner	3,332	.....	14	7	1	7/1	150
Lutheran Deaconess Home and Hospital[a]	Minneapolis	O. S. Bergh	940	.....	10	3	2	7/1	175
Swedish Hospital[a]	Minneapolis	.....	7,445	.....	..	..	3	7/1	125
Mercy Hospital-Street Memorial[a]	Vicksburg, Miss.	A. Street	2,419	20,668	48	19	3	7/1	125
St. Louis County Hospital[a]	Clayton, Mo.	L. A. Will	1,143	7,980	18	36	6	7/1	80
Ellis Fischel State Hospital[1]	Columbia, Mo.	J. J. Modlin	1,172	6,788	41	33	6	7/1	..
Menorah Hospital[a]	Kansas City, Mo.	H. Lapp	1,450	.....	15	6	2	7/1	125
St. Mary's Hospital[a1]	Kansas City, Mo.	J. E. Castles	3,131	.....	95	16	2	7/1	125
Missouri Methodist Hospital[a]	St. Joseph, Mo.	L. P. Forgrave	1,378	547	33	19	2	7/1	250
De Paul Hospital[a1]	St. Louis	H. A. Hassett	2,025	182	40	18	4	7/1	50
St. Anthony's Hospital[a]	St. Louis	F. T. Tainter	3,455	.....	47	30	1	7/1	150
St. Luke's Hospital[a1]	St. Louis	L. H. Jorstad	2,234	2,812	45	16	5	7/1	75
Montana Deaconess Hospital[a]	Great Falls, Mont.	L. L. Howard	1,340	1,842	20	11	2	7/1	200
Hackensack Hospital[a1]	Hackensack, N. J.	A. I. Mader, Jr.	4,672	1,188	51	..	7	7/1	125
Monmouth Memorial Hospital[a]	Long Branch, N. J.	W. A. Bullman	1,745	567	65	28	2	7/1	150
Mountainside Hospital[a]	Montclair, N. J.	R. T. Hobart	3,973	4,966	77	27	2	7/1	100-75
Fifth Memorial Hospital[a]	Neptune, N. J.	O. K. Parry	1,446	3,451	33	6	..	7/1	150
Presbyterian Hospital[1]	Newark, N. J.	G. Blackburne	4,644	156	..	..	4	.....	...
Muhlenberg Hospital[a]	Plainfield, N. J.	L. Salvati	3,486	2,023	108	42	..	7/1	150
St. Francis Hospital[a]	Trenton, N. J.	L. Haggerty	4,924	2,942	107	24	3	7/1	100
Greenpoint Hospital[a1]	Brooklyn	J. Smith, Jr.	1,310	11,334	43	19	4	7/1	150
Norwegian Lutheran Deaconesses' Home and Hospital[a]	Brooklyn	R. Tate	2,078	1,542	66	27	3	7/1	50
St. Mary's Hospital[a]	Brooklyn	T. M. Brennan	2,250	3,922	32	10	2	7/1	50
Children's Hospital[1]	Buffalo	W. L. Machemer	749	.....	21	16	2	7/1	25
Deaconess Hospital[a]	Buffalo	T. T. Jacobs	4,224	1,722	66	23	7	7/1	100
Sisters of Charity Hospital[a]	Buffalo	J. C. Brady	2,504	.....	80	34	3	7/1	150
Mary McClellan Hospital	Cambridge, N. Y.	D. M. Vickers	887	4,096	22	12	1	7/1	..
Gouverneur Hospital[a]	New York City	F. J. McGowan	733	10,402	32	14	3	7/1	50
Hospital for Special Surgery	New York City	F. Bowman	1,548	2,973	17	9	4	7/1	50

Memorial and other references will be found on page 1215.

26. SURGERY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
Knickerbocker Hospital[a1]	New York City	R. H. Patterson	2,024	3,457	52	9	5	7/1	110
Lebanon Hospital[a1]	New York City	M. Cohen and B. Sherwin	2,139	720	57	18	2	7/1	100
Mother Cabrini Hospital[a]	New York City	Dr. Alrich	1,103	2,256	34	10	2	.....	100
New York Infirmary[a1]	New York City	A. Hubert	650	1,750	..	..	2	7/1	75
Sydenham Hospital[a]	New York City	J. B. Stenbuck	1,122	2,688	34	6	2	7/1	130
White Plains Hospital[a]	White Plains, N. Y.	E. G. Ramsdell	2,300	.....	38	28	2	7/1	75
James Walker Memorial Hospital[a1]	Wilmington, N. C.	W. Hooper	4,414	6,375	60	15	4	7/1	125
City Memorial Hospital [1]	Winston-Salem, N. C.	J. F. Marshall	1,746	3,385	42	19	4	7/1	150
Kate Bitting Reynolds Memorial Hospital[a]	Winston-Salem, N. C.	J. M. Walker	2,349	7,296	53	23	3	7/1	150
Bismarck Hospital	Bismarck, N. D.	R. H. Waldschmidt	2,013	35,212	18	8	2	.....	300
St. Luke's Hospital[a1]	Fargo, N. D.	V. G. Borland	631	.....	7	3	2	7/1	150
Trinity Hospital[a1]	Minot, N. D.	A. L. Cameron	610	11,101	9	8	3	7/1	150
Deaconess Hospital[a]	Cincinnati	D. E. Earley	2,775	.....	39	18	3	7/1	125
Fairview Park Hospital[a1]	Cleveland	W. E. Smith	1,225	218	30	9	4	7/1	100
Doctors Hospital [1]	Cleveland Hgts., Ohio	R. R. Renner	1,529	.....	36	13	3	.....	200
St. Elizabeth Hospital[a1]	Dayton, Ohio	C. J. Derby	7,004	.....	45	13	3	7/1	150
Mercy Hospital[a1]	Hamilton, Ohio	G. E. Marr	2,282	280	45	15	3	7/1	100
St. Anthony Hospital[a]	Oklahoma City	L. J. Starry	4,373	976	82	32	2	7/1	75
Wesley Hospital[a1]	Oklahoma City	J. H. Robinson	1,778	1,602	57	23	3	7/1	150
St. John's Hospital[a]	Tulsa, Okla.	D. L. Garrett	1,800	.....	34	19	4	.....	150
Providence Hospital[a]	Portland, Ore.	L. P. Gambee	3,491	.....	85	47	2	7/1	75
Sacred Heart Hospital[a1]	Allentown, Pa.	W. A. Hausman	4,462	8,815	109	51	3	7/1	150
Hazleton State Hospital	Hazleton, Pa.	.....	.....	.....	..	..	..	.....	...
Doctors Hospital[a]	Philadelphia	J. W. Brasefield	1,578	1,752	32	18	1	7/1	200
Frankford Hospital[a]	Philadelphia	B. H. Chandlee and R. Lorry	1,291	2,011	50	14	2	7/1	150
Hospital of the Woman's Medical College of Pennsylvania[a1]	Philadelphia	L. K. Ferguson	1,042	7,868	18	6	2	7/1	60
Misericordia Hospital	Philadelphia	.....	.....	.....	..	..	.....	.....	...
St. Joseph's Hospital[a]	Philadelphia	.....	.....	.....	..	..	.....	.....	...
St. Mary's Hospital[a]	Philadelphia	.....	.....	.....	..	..	.....	.....	...
Allegheny General Hospital[a]	Pittsburgh	J. C. Hurt	2,733	4,630	94	15	1	7/1	100
Reading Hospital[a1]	Reading, Pa.	W. E. Lehkicher	3,057	1,487	86	45	2	7/1	100
St. Joseph's Hospital[a]	Reading, Pa.	Dr. Impink	1,360	2,370	35	17	1	7/1	100
Washington Hospital[a]	Washington, Pa.	P. P. Riggle	1,395	3,665	56	12	2	7/1	175
Mercy Hospital[a1]	Wilkes-Barre, Pa.	F. M. Pugliese	1,942	1,191	17	7	2	7/1	100
Wilkes-Barre General Hospital[a1]	Wilkes-Barre, Pa.	M. C. Rumbaugh	4,856	3,005	102	17	1	7/1	100
Columbia Hospital[a]	Wilkinsburg, Pa.	W. B. Hetzel	1,254	.....	29	6	..	10/1	150
Mid-State Baptist Hospital[a1]	Nashville, Tenn.	R. O. Fessey	940	.....	21	7	4	7/1	150
Brackenridge Hospital[a]	Austin, Texas	F. Zidd	1,882	2,810	40	27	1	7/1	100
Methodist Hospital[a1]	Dallas, Texas	B. E. Park	3,719	97	49	15	6	7/1	75
St. Paul's Hospital[a1]	Dallas, Texas	O. W. Gibbons	984	2,604	12	1	6	7/1	100
Harris Hospital[a1]	Fort Worth, Texas	W. B. Swift	1,547	542	16	9	4	7/1	100
Memorial Hospital [1]	Houston, Texas	L. E. Williford	6,549	.....	51	9	3	.....	150
St. Joseph's Infirmary[a]	Houston, Texas	M. B. Stokes	2,443	680	15	7	3	1/1	150
Southern Pacific Hospital	Houston, Texas	J. R. Gandy	672	6,630	3	3	3	.....	225
Thomas D. Dee Memorial Hospital[a]	Ogden, Utah	C. H. Jenson	2,095	.....	36	11	2	.....	100
Bishop de Goesbriand Hospital[a1]	Burlington, Vt.	Dr. Gladstone	731	58	6	4	2	1/1, 7/1	100
Arlington Hospital [1]	Arlington, Va.	J. T. Hazel	581	.....	7	5	2	.....	...
Riverside Hospital[a1]	Newport News, Va.	F. V. Siegel	1,229	3,360	14	5	3	7/1	150
De Paul Hospital[a1]	Norfolk, Va.	C. C. Smith	2,754	1,587	44	21	2	7/1	100
St. Elizabeth's Hospital [1]	Richmond, Va.	G. W. Horsley	1,586	120	10	8	2	.....	100
Lewis Gale Hospital[a]	Roanoke, Va.	W. L. Sibley	1,043	14,705	11	5	2	7/1	150
Doctors Hospital[a]	Seattle	D. K. Crystal	3,430	.....	39	30	2	7/1	100
Providence Hospital[a1]	Seattle	R. L. Zech	1,986	360	21	17	3	7/1	100
Swedish Hospital[a1]	Seattle	R. Lee	3,814	.....	39	24	3	.....	100
St. Luke's Hospital[a]	Spokane, Wash.	L. C. Penee	2,308	.....	60	42	1	7/1	125
La Crosse Lutheran Hospital[a1]	La Crosse, Wis.	S. Gundersen	1,714	.....	30	17	1	7/1	150
Methodist Hospital[a1]	Madison, Wis.	A. S. Jackson	1,491	.....	43	19	3	7/1	140
St. Mary's Hospital[a1]	Madison, Wis.	J. C. Dean	2,660	.....	48	17	1	7/1	150
Mount Sinai Hospital[a]	Milwaukee	D. V. Elconin	1,437	672	32	13	6	7/1	75
St. Luke's Hospital[a]	Milwaukee	J. Garland	1,727	.....	14	5	1	7/1	200
St. Mary's Hospital[a]	Milwaukee	C. Fuller	5,063	.....	40	8	1	7/1	...

27. THORACIC SURGERY

The following services are approved by the Council and the Board of Thoracic Surgery. Residencies in this specialty have been approved without specifying the number of years for which they are accredited. The Board will give appropriate credit for training in these hospitals on an individual basis.

Hospitals, 43 Assistant Residencies and Residencies, 66

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered *	Beginning of Service (1950)	Beginning Stipend (Month)
United States Army									
Fitzsimmons General Hospital[a]	Denver	J. H. Forsee	363	305	6	4	..	1/1, 7/1	n
Army Medical Center[15]	Washington, D. C.	F. N. Cooke	388	324	8	8	..	7/1	n
Veterans Administration									
†Veterans Admin. Hospital[a1]	Van Nuys, Calif.	J. A. Weinberg	178	4,913	7	7	..	1/1, 7/1	n
†Veterans Admin. Hospital	Chamblee, Ga.	O. Abbott	250	25	14	10	2	7/1	n
Veterans Admin. Hospital	Hines, Ill.	J. Brad	433	.....	27	13	3	1/1, 7/1	n
Veterans Admin. Hospital	Rutland Hghts., Mass.	J. J. Cincotti	302	162	8	2	1	7/1	n
†Veterans Admin. Hospital [1]	Minneapolis	.....	.....	.....	..	..	..	.....	...
†Veterans Admin. Hospital [1]	Castle Point, N. Y.	R. Friedlander	349	25	..	..	..	1/1, 7/1	n
Veterans Admin. Hospital [1]	New York City	F. B. Berry	188	571	11	9	3	1/1, 7/1	n
Veterans Admin. Hospital	Otsen, N. C.	J. D. Murphy	1,020	100	33	103	7	7/1	n
Veterans Admin. Hospital [1]	Cleveland	E. B. Kay	137	47	12	1	2	7/1	n
†Veterans Admin. Hospital	Memphis, Tenn.	F. A. Hughes	383	.....	20	15	4	7/1	n
Veterans Admin. Hospital [1]	McKinney, Texas	J. Carswell	190	.....	12	10	2	7/1	n
Veterans Admin. Hospital [1]	Richmond, Va.	F. P. Coleman	243	.....	22	10	2	7/1	n

Numerical and other references will be found on page 1215.

27. THORACIC SURGERY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered*	Beginning of Service (1950)	Beginning Stipend (Month)
Nonfederal									
Los Angeles Sanatorium	Duarte, Calif.	A. Goldman	291	.....	7	5	2	7/1	...
Highland-Alameda County Hospital[a]	Oakland, Calif.	P. C. Sampson	.....	.....	..	..	1	.....	135
Olive View Sanatorium [1]	Olive View, Calif.	J. Skillen	.....	.....	..	..	4	.....	417
†National Jewish Hospital [1]	Denver	J. B. Grow	.....	.....	..	..	1	7/1	150
Norwich State Tuberculosis Sanatorium (Uncas-on-Thames) [1]	Norwich, Conn.	W. O. Kelley	120	.....	7	3	1	7/1	400
†University Hospital[a]	Augusta, Ga.	R. C. Major	225	408	7	6	2	7/1	60
City of Chicago Municipal Tuberculosis Sanitarium	Chicago	G. W. Holmes	578	245	23	12	5	1/1, 7/1	125
Boston Sanatorium	Boston	J. Strieder	.....	.....	..	..	2	.....	...
University Hospital[a,1]	Ann Arbor, Mich.	J. Alexander	500	1,941	30	26	3	7/1	120-60
Herman Kiefer Hospital [1]	Detroit	K. J. O'Brien	1,061	676	7	3	4	7/1	185
Mississippi State Tuberculosis Sanatorium [1]	Sanatorium, Miss.	L. R. Reid	161	139	1	1	..	7/1	200
Barnes Hospital[a]	St. Louis	E. A. Graham	648	.....	38	33	1	7/1	25
Berthold S. Pollak Hospital for Chest Diseases	Jersey City, N. J.	F. Bertone	200	.....	6	..	2	.....	100
Kings County Hospital[a]	Brooklyn	L. Hochberg	360	675	50	17	1	7/1	120
Edward J. Meyer Memorial Hospital[a,1]	Buffalo	J. D. Stewart	227	.....	20	18	2	7/1	100
Hermann M. Biggs Memorial Hospital [1]	Ithaca, N. Y.	R. Douglass	317	.....	..	..	1	1/1, 7/1	250
Triboro Hospital [1]	Jamaica, N. Y.	D. A. Mulvihill	.....	.....	13	7	4	.....	80
Mount Morris Tuberculosis Hospital	Mount Morris, N. Y.	.....	.....	.....	..	..	..	.....	...
Bellevue Hospital[a] Div. 1—Columbia University	New York City	.....	.....	.....	..	..	2	.....	...
Metropolitan Hospital[a,1]	New York City	.....	88	.....	10	3	2	7/1	80
Homer Folks Tuberculosis Hospital	Oneonta, N. Y.	A. M. Skinner	138	12	5	4	2	7/1	300
Ray Brook State Tuberculosis Hospital	Ray Brook, N. Y.	J. Gordon	147	110	2	2	1	1/1, 7/1	...
Sea View Hospital [1]	Staten Island, N. Y.	L. R. Davidson	331	.....	28	9	6	1/1, 7/1	150
City Hospital[a,1]	Cleveland	S. O. Freedlander	167	787	12	6	2	7/1	70
University of Oregon Medical School Hospital[a] and Clinics[a,1]	Portland, Ore.	W. Conklin	220	6,717	6	6	4	7/1	75
Episcopal Hospital[a,1]	Philadelphia	R. P. Glover	85	.....	12	7	2	.....	...
Hahnemann Hospital[a,1]	Philadelphia	.....	.....	.....	..	..	..	.....	...
Baylor University Hospital[a,1,22]	Dallas, Texas	R. R. Shaw	157	.....	6	2	1	.....	50
Muirdale Sanatorium	Milwaukee	J. Steele	.....	.....	..	..	2	.....	...

28. UROLOGY

The following services are approved by the Council and the American Board of Urology.

Hospitals, 213 Assistant Residencies and Residencies, 485

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered*	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning at paid (Month)
United States Army										
Letterman General Hospital[a]	San Francisco	J. W. Schwartz	448	2,057	5	5	3	1/1, 7/1	2	n
Fitzsimmons General Hospital	Denver	J. N. Funk	464	1,221	3	2	..	1/1, 7/1	1	n
Army Medical Center[a]	Washington, D. C.	J. C. Kimbrough	613	4,604	10	10	7	7/1	3	n
Brooke Army Medical Center[a]	San Antonio, Texas	G. R. Hamilton	1,258	9,405	16	14	6	7/1	3	n
Gorgas Hospital[a]	Ancon, C. Z.	R. W. Satterthwaite	689	4,814	20	15	5	7/1	3	n
Tripler General Hospital[a]	Moanalua, T. H.	C. C. Dodson	1,132	2,144	..	..	..	7/1	3	n
United States Navy										
U. S. Naval Hospital[a]	Long Beach, Calif.	L. A. Newton	1,082	3,164	10	8	2	Varies	3	n
U. S. Naval Hospital[a]	Oakland, Calif.	A. C. Abernethy	786	.....	3	3	2	.....	3	n
U. S. Naval Hospital[a]	San Diego, Calif.	P. E. Huth	953	2,648	12	10	..	.....	3	n
U. S. Naval Hospital[a]	Bethesda, Md.	H. J. Cokely	7,749	3,247	29	21	5	Varies	3	n
U. S. Naval Hospital[a]	St. Albans, N. Y.	S. Johnson	449	872	13	11	..	.....	3	n
U. S. Naval Hospital[a]	Philadelphia	J. W. Rogers	737	1,068	15	14	2	1/1, 7/1	3	n
United States Public Health Service										
U. S. Marine Hospital[a,1]	Baltimore	J. S. Haines	785	2,932	3	3	2	7/1	2	n
U. S. Marine Hospital[a,1]	Stapleton, S. I., N. Y.	C. Ferguson	615	760	13	8	3	7/1	3	n
Federal Security Agency										
Freedmen's Hospital[a,1]	Washington, D. C.	H. F. Jones	502	3,004	13	7	1	7/1	3	n
Veterans Administration										
†Veterans Admin. Hospital[a]	Los Angeles	G. J. Thomas	481	1,939	31	25	5	7/1	3	n
Veterans Admin. Hospital	San Francisco	H. M. Weyrauch	221	549	6	5	3	7/1	3	n
Veterans Admin. Hospital[a,1]	Van Nuys, Calif.	D. Malcolm	466	1,117	4	4	3	1/1, 7/1	3	n
Veterans Admin. Hospital	Newington, Conn.	T. H. Frazier	554	455	10	7	1	7/1	2	n
Veterans Admin. Hospital	Washington, D. C.	.....	.....	.....	..	..	..	.....	3	n
Veterans Admin. Hospital	Chamblee, Ga.	M. K. Bailey	506	39	9	6	2	7/1	3	n
Veterans Admin. Hospital	Hines, Ill.	F. Lloyd	2,750	.....	43	31	9	1/1, 7/1	3	n
†Veterans Admin. Center [1]	Wadsworth, Kan.	R. W. Scott	227	.....	10	2	2	1/1, 7/1	3	n
Veterans Admin. Hospital [1]	Louisville, Ky.	M. I. Schwalbe	508	2,075	9	3	3	.....	2	n
Veterans Admin. Hospital [1]	New Orleans	E. Burns	339	634	13	11	2	7/1	3	n
Veterans Admin. Hospital	Fort Howard, Md.	H. J. Meisel	219	138	9	7	2	7/1	3	n
Veterans Admin. Hospital (West Roxbury)	Boston	S. Vose	366	561	6	5	2	1/1, 7/1	2	n
Veterans Admin. Hospital [1]	Framingham, Mass.	E. P. Stone	445	866	9	7	2	1/1	2	n
Veterans Admin. Hospital	Minneapolis	C. D. Creevy	788	875	22	13	2	7/1	..	n

Numerical and other references will be found on page 1215.

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28. UROLOGY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res., and Residencies Offered	Beginning of Service (Mo.)	Length of Approved Program (Years)	Beginning Salary (Month)
Veterans Admin. Hospital [1]	Jefferson Bks., Mo.	J. J. Cordonnier	501	.....	19	12	3	7/1	3	n
Veterans Admin. Hospital	Lincoln, Neb.	A. D. Munger	308	.....	6	3	2	7/1	3	n
Veterans Admin. Hospital	Albuquerque, N. M.	J. D. Shea	282	.....	1	..	1	7/1	3	n
Veterans Admin. Hospital	New York City	A. L. Dean	797	1,471	36	29	5	1/1, 7/1	2	n
Veterans Admin. Hospital [1]	Staten Island, N. Y.	S. N. Kessler	592	1,367	4	4	2	7/1	2	n
Veterans Admin. Hospital [1]	Cleveland	J. J. Jochson	534	72	15	14	2	7/1	3	n
Veterans Admin. Hospital	Dayton, Ohio		.....	.....	..	..	1	7/1	3	n
Veterans Admin. Hospital	Portland, Ore.	F. B. Potampa	491	.....	9	8	1	1/1, 7/1	3	n
Veterans Admin. Hospital	Aspinwall, Pa.	C. A. Kuehn	384	.....	10	4	3	7/1	3	n
Veterans Admin. Hospital	Columbia, S. C.	K. M. Lippert	530	.....	7	4	4	.....	3	n
†Veterans Admin. Hospital	Memphis, Tenn.	F. M. Jacola	522	398	14	7	2	7/1	3	n
Veterans Admin. Hospital [1]	Dallas, Texas	R. C. Smith	504	.....	9	8	1	1/1	3	n
Veterans Admin. Hospital [1]	Houston, Texas	A. W. Miles	146	.....	4	3	2	7/1	2	n
Veterans Admin. Hospital [1]	McKinney, Texas	P. H. Duff	364	2,670	5	4	1	7/1	3	n
Veterans Admin. Center [1]	White River Jct., Vt.	W. L. McLaughlin	558	.....	6	6	1	9/1	2	n
Veterans Admin. Hospital [1]	Richmond, Va.	R. C. Bunts	574	1,802	7	6	4	7/1	3	n
Veterans Admin. Center	Milwaukee	F. Raine	450	711	19	14	4	7/1	3	n
Nonfederal										
†Carraway Methodist Hospital [2]	Birmingham, Ala.	L. Timberlake	290	3,086	3	2	1	7/1	3	150
Jefferson-Hillman Hospital [2]	Birmingham, Ala.	B. Barclare	498	5,666	23	8	4	7/1	3	50
Los Angeles County Hospital [2]	Los Angeles	J. J. Crane	2,500	13,052	183	68	7	Varies	3	166
†Presbyterian Hospital-Olmsted Memorial [2]	Los Angeles	.....	.....	.....	..	..	1	.....	2	166
White Memorial Hospital [2]	Los Angeles	R. W. Barnes	501	5,990	16	7	1	7/1	3	120
San Diego County General Hospital [2]	San Diego, Calif.	R. J. Prentiss	568	2,467	24	14	2	7/1	2	125
Franklin Hospital [2]	San Francisco	F. Hinman, Sr.	780	.....	11	5	3	7/1	2	100
San Francisco Hospital [2]	San Francisco		.....	.....	..	..	1	7/1	3	175
Southern Pacific General Hospital [2]	San Francisco	T. E. Gibson	644	12,951	6	2	2	7/1	2	...
Stanford University Hospitals [2]	San Francisco	H. M. Weyrauch	485	3,673	9	3	2	7/1	3	50
University of California Hospital [2]	San Francisco	F. Hinman	415	7,430	7	6	1	7/1	3	75
Santa Clara County Hospital [2]	San Jose, Calif.	E. Henderson	240	2,173	9	8	1	7/1	2	225
Harbor General Hospital [2]	Torrance, Calif.	L. O. Shaw	310	1,685	26	16	2	7/1	3	165
University of Colorado Medical Center										
Colorado General Hospital [2]	Denver	D. R. Higbee	401	3,613	21	16	3	7/1	3	75
Denver General Hospital [2, 3]	Denver	D. E. Newland	425	.....	21	13	1	7/1	3	75
Corwin Hospital [2]	Pueblo, Colo.	H. T. Low	181	850	..	..	1	7/1	3	75
Grace-New Haven Community Hospital										
New Haven Unit (University Service) [2]	New Haven, Conn.	C. Deming	614	2,254	20	11	1	7/1	3	40
Hospital of St. Raphael [2]	New Haven, Conn.	L. L. Maurer	501	218	11	4	1	7/1	3	75
Waterbury Hospital [2]	Waterbury, Conn.	H. J. Stettbacher	478	244	14	6	1	7/1	2	100
Gallinger Municipal Hospital [2]	Washington, D. C.	L. Lewis	341	1,759	13	7	3	7/1	3	100
Duval Medical Center [2]	Jacksonville, Fla.	R. B. McIver	500	.....	29	19	1	7/1	2	125
St. Vincent's Hospital [2]	Jacksonville, Fla.	R. B. McIver	343	.....	12	7	1	7/1	2	100
†Jackson Memorial Hospital [2]	Miami, Fla.	W. L. Fitzgerald	880	1,928	25	16	1	7/1	2	60
Orange Memorial Hospital	Orlando, Fla.		.....	.....	..	..	.....	.....	2	.....
Grady Memorial Hospital [2, 3, 22]	Atlanta, Ga.	M. K. Bailey	855	8,620	36	10	6	7/1	3	50
University Hospital [2]	Augusta, Ga.	J. R. Rinker	382	806	9	3	2	7/1	2	40
Abraham Brothers Hospital	Chicago	E. P. Hess	376	.....	17	5	1	7/1	1	125
Cook County Hospital [2]	Chicago	W. J. Baker	1,791	3,091	105	50	3	1/1, 7/1	3	32
Mercy Hospital-Loyola University Clinics [2]	Chicago	H. E. Landes	473	.....	5	1	1	7/1	3	25
Michael Reese Hospital [2]	Chicago	I. Shapiro	706	1,386	29	19	3	1/1	3	25
Mount Sinai Hospital [2]	Chicago	L. A. Maslow	422	1,128	22	8	1	4/1	2	50
Presbyterian Hospital [2]	Chicago	N. J. Herkel	847	3,959	15	10	3	.....	3	25
Provident Hospital [2]	Chicago	W. S. Grant	213	1,319	12	3	3	7/1	2	50
St. Luke's Hospital [2]	Chicago	H. Culver	604	.....	14	10	2	7/1	3	25
University of Chicago Clinics [2]	Chicago	C. B. Huggins	315	5,866	8	7	3	.....	3	...
Wesley Memorial Hospital [2]	Chicago	V. J. O'Conor	411	.....	14	7	1	7/1	3	25
†Evanston Hospital [2]	Evanston, Ill.	J. I. Farrell	283	421	1	..	1	7/1	3	50
St. Francis Hospital [2]	Evanston, Ill.	B. E. Fillis	605	84	13	7	..	7/1	1	75
St. Francis Hospital [2]	Peoria, Ill.	A. Sprenger	652	243	23	10	2	7/1	3	100
Indianapolis General Hospital [2]	Indianapolis	E. Ruppel	570	2,653	35	15	2	7/1	3	80
Indiana University Medical Center [2]	Indianapolis	H. O. Mertz	517	2,511	12	9	2	7/1	3	68.33
Methodist Hospital [2]	Indianapolis	R. D. Howell	1,391	286	26	10	2	.....	2	200
University Hospitals [2]	Iowa City	R. H. Flocks	1,049	1,557	47	27	6	.....	3	...
University of Kansas Medical Center [2]	Kansas City, Kan.	W. Valk	615	1,736	26	17	4	7/1	3	100
St. Joseph Hospital [2]	Lexington, Ky.	E. H. Ray	734	80	21	11	1	7/1	1	100
Louisville General Hospital [2]	Louisville, Ky.	C. Lich, Jr.	338	2,783	18	6	2	7/1	3	75
Charity Hospital of Louisiana [2]	New Orleans	M. Wolf	2,673	18,569	87	41	13	7/1	3	25
Ochsner Foundation Hospital	New Orleans	E. Burns	375	11,515	8	7	3	7/1	3	125
Touro Infirmary [2]	New Orleans	E. Vickery	567	1,846	15	6	1	7/1	3	17.50
Shreveport Charity Hospital	Shreveport, La.	R. K. Womack	701	2,628	27	14	2	7/1	3	60
Johns Hopkins Hospital [2]	Baltimore	W. W. Scott	1,021	4,338	30	21	4	7/1	3	41.66
†Sinai Hospital [2]	Baltimore		444	882	18	9	4	7/1	3	25
Beth Israel Hospital [2]	Boston	G. Prather	381	2,432	..	..	1	7/1	2	41.66
Boston City Hospital [2]	Boston	G. C. Prather	537	7,182	27	9	4	7/1	3	140
Lahey Clinic	Boston	E. E. Ewert	439	5,326	7	..	4	7/1	3	125
Massachusetts General Hospital [2]	Boston		.....	.....	..	..	.....	.....	3	...
Massachusetts Memorial Hospital [2]	Boston	S. N. Vose	501	1,340	6	4	2	7/1	3	50
New England Center Hospital [2]	Boston	W. F. Leadbetter	94	106	..	..	1	7/1	3	275
Peter Bent Brigham Hospital [2]	Boston	J. H. Harrison	.....	2,177	..	..	1	7/1	3	41.66
Mount Auburn Hospital [2]	Cambridge, Mass.	H. Chamberlin	308	219	7	4	1	7/1	1	100
Worcester City Hospital [2]	Worcester, Mass.	L. M. Felton	578	550	28	17	1	1/1	2	100
University Hospitals [2]	Ann Arbor, Mich.	R. Nesbit	1,256	6,000	15	7	3	.....	3	...
City of Detroit Receiving Hospital [2]	Detroit	G. Sewell	696	4,073	34	14	2	7/1	3	149.68
Grace Hospital [2]	Detroit	L. W. Hull	1,110	.....	15	4	1	7/1	3	75
Harper Hospital [2]	Detroit	G. Sewell	1,257	1,130	27	13	3	7/1	3	150
Henry Ford Hospital [2]	Detroit	J. K. Ormond	616	16,334	14	9	3	7/1	3	200
Wayne County General Hospital and Infirmary [2]	Eloise, Mich.	W. L. Sherman	832	1,471	41	16	2	7/1	3	225
Minneapolis General Hospital [2]	Minneapolis	T. H. Sweetser	327	1,582	25	10	1	1/1, 7/1	3	125

Numerical and other references will be found on page 1215.

28. UROLOGY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Internships Offered *	Beginning of Service (1950)	Length of Approved Program (Years)	Beginning Stipend ($/Month)
St. Mary's Hospital[a]	Minneapolis	T. H. Sweetser	357	.....	9	5	1	.....	3	200
University of Minnesota Hospitals[a1]	Minneapolis	C. D. Creevy	709	3,167	21	17	3	7/1	3	125
Mayo Foundation	Rochester, Minn.	G. J. Thompson	....	.....	..	..	15	Varies	..	91.50
Ancker Hospital[a1]	St. Paul	F. E. B. Foley	566	1,643	36	19	2	7/1	3	91.50
Charles T. Miller Hospital[a1]	St. Paul	P. F. Donahue and F. E. B. Foley	339	718	7	7	1	7/1	3	115
Kansas City General Hospital No. 1[a]	Kansas City, Mo.	A. L. Stockwell	573	2,389	49	23	2	7/1	3	50
Research Hospital[a1]	Kansas City, Mo.	R. L. Hoffman	539	21	8	5	2	7/1	3	100
Barnes Hospital[a]	St. Louis	D. K. Rose	957	3,666	12	9	1	7/1	3	25
Homer G. Phillips Hospital[a1]	St. Louis	C. Wattenberg	940	3,068	32	5	2	7/1	3	80
Missouri Baptist Hospital[a1]	St. Louis	C. E. Burford	981	.....	22	2	1	7/1	1	70
Missouri Pacific Hospital	St. Louis	A. Vitt and W. F. Melick	....	.....	..	..	..	.....	2	...
St. Louis City Hospital[a1]	St. Louis	C. Wattenberg and W. F. Melick	519	.....	78	33	3	7/1	3	...
St. Mary's Group of Hospitals[a1]	St. Louis	C. E. Burford	725	2,647	22	10	3	7/1	3	35
Atlantic City Hospital[a]	Atlantic City, N. J.	C. H. Shivers	349	3,026	6	3	1	7/1	2	50
Bayonne Hospital and Dispensary[a]	Bayonne, N. J.	A. J. Balsamo	665	700	2	1	2	7/1	3	...
Cooper Hospital[a1]	Camden, N. J.	D. F. Bentley, Jr.	476	3,885	19	10	2	7/1	2	85.33
Jersey City Hospital[a]	Jersey City, N. J.	E. J. Daly	402	1,708	23	5	3	Varies	3	35
Newark City Hospital[a1]	Newark, N. J.	C. O. Crowley	....	.....	..	..	1	.....	3	50
Orange Memorial Hospital[a1]	Orange, N. J.	J. K. DeVries and W. P. Burpeau	433	523	24	7	1	7/1	2	100
Albany Hospital[a1]	Albany, N. Y.	J. E. Heslin	816	1,211	21	12	2	7/1	3	41.66
Jewish Hospital[a1]	Brooklyn	L. Bartz	679	1,435	26	10	1	7/1	2	50
Kings County Hospital[a1]	Brooklyn	F. L. Senger	1,536	4,147	175	19	3	7/1	3	80
Long Island College Hospital[a]	Brooklyn	F. L. Senger	570	2,639	27	10	3	7/1	3	50
Methodist Hospital[a1]	Brooklyn	H. T. Langworthy, Sr., O. P. Schoenemann	508	1,113	7	3	1	7/1	3	25
Buffalo General Hospital[a]	Buffalo	O. J. Oberkircher	635	1,671	23	12	2	7/1	3	25
Edward J. Meyer Memorial Hospital[a]	Buffalo	G. E. Slotkin	436	1,402	20	26	2	7/1	3	100
Millard Fillmore Hospital[a]	Buffalo	G. E. Slotkin	502	32	24	8	2	7/1	3	50
Queens General Hospital[a1]	Jamaica, N. Y.	B. Derrah	824	6,685	92	54	3	7/1	3	...
Bellevue Hospital,[a1] Div. II—Cornell University	New York City	....	.....	..	..	.....	3	...		
Beth Israel Hospital[a1]	New York City	S. F. Wilhelm	827	2,188	31	10	3	7/1	3	50
French Hospital[a]	New York City	J. D. Cooney	284	1,154	5	1	2	7/1	3	50
Metropolitan Hospital[a1]	New York City	S. Carleton	403	2,825	36	15	2	7/1	3	170
Morrisania City Hospital[a1]	New York City	J. Duff	741	2,907	39	13	4	7/1	3	80
Mount Sinai Hospital[a]	New York City	G. Oppenheimer	934	4,445	29	10	2	7/1	3	50
New York City Hospital[a]	New York City	J. H. Morrissey	373	2,712	24	13	2	7/1	2	60
New York Hospital[a1]	New York City	Dr. Marshall	1,006	41,650	24	..	6	7/1	3	25
New York Polyclinic Medical School and Hospital[a]	New York City	J. S. Ritter	480	979	10	2	2	7/1	3	50
Presbyterian Hospital[a1]	New York City	G. F. Cahill	1,536	10,256	31	..	6	1/1, 7/1	3	41.66
Roosevelt Hospital[a1]	New York City	S. A. Belsler	544	3,188	9	6	3	7/1	3	25
St. Clare's Hospital[a]	New York City	R. W. Hunt	214	467	4	1	..	7/1	3	25
St. Luke's Hospital[a]	New York City	J. A. Taylor	525	4,502	17	4	2	7/1	3	50
University Hospital[a]	New York City	R. Hotchkiss	540	2,584	10	4	5	7/1	3	80
Strong Memorial-Rochester Municipal Hospitals[a1]	Rochester, N. Y.	W. W. Scott	744	13,592	..	..	3	7/1	3	41.66
Sea View Hospital [1]	Staten Island, N. Y.	A. J. Greenberger	782	.....	3	2	2	1/1, 7/1	1	130
Charlotte Memorial Hospital[a]	Charlotte, N. C.	H. W. McKay	1,328	384	30	12	2	7/1	3	60
Duke Hospital[a1]	Durham, N. C.	E. P. Alyea	550	4,165	7	3	4	7/1	3	83.33
Watts Hospital[a1]	Durham, N. C.	W. M. Coppridge	560	2,161	12	6	1	7/1	2	50
North Carolina Baptist Hospital[a1]	Winston-Salem, N. C.	F. K. Garvey	560	2,561	9	5	3	7/1	3	41.66
Cincinnati General Hospital[a]	Cincinnati	P. G. Smith	566	5,290	42	15	..	.....	2	...
City Hospital[a1]	Cleveland	H. Trattner	476	1,676	30	11	2	7/1	3	70
Cleveland Clinic Hospital [1]	Cleveland	C. C. Higgins	1,149	22,661	12	4	5	7/1	3	133
University Hospitals[a1]	Cleveland	J. J. Joelson	712	4,255	9	..	1	7/1	2	75
Ohio State University Hospitals[a1]	Columbus, Ohio	W. N. Taylor	669	....	36	26	6	7/1	3	50
Huron Road Hospitals[a1]	East Cleveland, Ohio	V. C. Laughlin	454	.....	10	5	..	.....	2	....
St. Vincent's Hospital[a1]	Toledo, Ohio	L. P. Dolan	832	24	18	9	2	7/1	3	...
University Hospitals[a]	Oklahoma City	B. A. Hayes	197	2,823	12	4	1	7/1	3	25
Hillcrest Memorial Hospital[a1]	Tulsa, Okla.	J. Akin	342	.....	8	..	5	7/1	3	75
St. John's Hospital[a1]	Tulsa, Okla.	H. S. Browne	800	.....	21	5	1	.....	2	150
St. Vincent's Hospital[a]	Portland, Ore.	J. R. Hand	724	.....	12	9	1	.....	2	75
University of Oregon Medical School Hospitals and Clinics[a1]	Portland, Ore.	C. Hodges	310	2,897	24	18	5	7/1	3	75
Allentown Hospital[a]	Allentown, Pa.	W. C. Masonheimer	863	165	7	3	1	7/1	2	100
George F. Geisinger Memorial Hospital and Clinics	Danville, Pa.	W. I. Buchert	949	8,520	16	5	2	7/1	3	75
St. Vincent's Hospital[a]	Erie, Pa.	E. Hess	1,182	4,342	29	21	4	7/1	3	50
Harrisburg Hospital[a1]	Harrisburg, Pa.	S. L. Grossman	534	3,288	23	8	1	7/1	2	100
Episcopal Hospital[a1]	Philadelphia	G. D. Shoup	291	600	7	5	2	7/1	2	50
Graduate Hospital of the University of Pennsylvania[a]	Philadelphia	J. O. Birdsall	132	3,057	6	3	1	7/1	2	...
Hahnemann Hospital[a1]	Philadelphia	F. W. Campbell	881	2,311	12	5	3	9/1	3	50
Hospital of the University of Pennsylvania[a1]	Philadelphia	B. P. Hughes	886	3,188	..	..	3	Varies	3	100
Jefferson Medical College Hospital[a]	Philadelphia	D. M. Davis	1,000	5,136	25	10	3	.....	3	...
Jewish Hospital[a1]	Philadelphia	....	.....	..	..	1	7/1	1	50	
Lankenau Hospital[a1]	Philadelphia	C. A. W. Uhle	320	861	10	5	1	7/1	2	50
Mount Sinai Hospital[a1]	Philadelphia	M. Muschat and I. J. Carp	387	318	12	10	1	7/1	2	50

Numerical and other references will be found on page 1215.

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28. UROLOGY—Continued

Name of Hospital	Location	Chief of Service	Inpatients Treated	Outpatient Visits	Deaths	Autopsies	Asst., Res. and Residencies Offered *	Beginning of Service (1/1, 7/1)	Length of Approved Program (years)	Beginning Stipend ($/mo.)
Pennsylvania Hospital[2]	Philadelphia	L. Herman	637	2,388	9	5	2	.....	3	20
Philadelphia General Hospital[2,1]	Philadelphia	L. McCrea	662	5,020	61	33	4	7/1	3	75
Presbyterian Hospital[2,12]	Philadelphia	F. G. Harrison	407	4,710	17	13	1	7/1	3	...
Temple University Hospital[2,1]	Philadelphia	K. B. Conger	480	1,548	24	18	2	.....	3	...
Allegheny General Hospital[2]	Pittsburgh	J. C. Burt	333	355	12	2	1	7/15	3	100
Mercy Hospital[2,1]	Pittsburgh	F. J. McCague	522	448	6	2	2	7/1	3	100
Pittsburgh Medical Center[2,1,22]	Pittsburgh	J. J. Lee	485	1,067	9	4	3	7/1	3	41.67
Robert Packer Hospital[2]	Sayre, Pa.	W. Baurys	473	1,097	10	13	1	7/1	3	120
Pittsburgh Medical Center[2,1,22]	Wilkes-Barre, Pa.	P. P. Mayock	308	1,179	9	5	1	7/1	1	75
Rhode Island Hospital[2]	Providence, R. I.	.....	.....	.....	...	...	...	.....	2	...
Roper Hospital[2,1]	Charleston, S. C.	J. J. Ravenel	658	1,701	6	3	2	7/1	3	50
Tri-County Hospital[2]	Orangeburg, S. C.	L. P. Thackston	1,250	7,650	14	12	2	7/1	3	100
Baptist Memorial Hospital[2]	Memphis, Tenn.	J. L. Morgan	1,229	500	33	11	1	7/1	1	75
John Gaston Hospital[2]	Memphis, Tenn.	T. D. Moore	723	4,914	31	18	6	7/1	3	...
St. Joseph Hospital[2,1]	Memphis, Tenn.	C. D. Allen	674	.....	19	7	3	7/1	3	100
Nashville General Hospital[2]	Nashville, Tenn.	H. C. Gayden	417	1,979	17	5	.....	.....	2	...
Parkland Hospital[2,1]	Dallas, Texas	K. B. King	428	3,631	11	8	2	7/1	3	50
University of Texas Medical Branch Hospitals John Sealy Hospital[2,3]	Galveston, Texas	R. E. Cone	760	5,463	12	7	3	.....	3	75
Hermann Hospital[2,1]	Houston, Texas	C. M. Crigler	780	1,416	11	7	4	.....	3	50
Jefferson Davis Hospital[2]	Houston, Texas	M. E. DeBakey	542	3,786	41	14	2	7/1	3	50
Wichita Falls Clinic Hospital[2]	Wichita Falls, Texas	J. R. Reagan	300	8,811	1	1	1	.....	3	300
Mary Fletcher Hospital[2,20]	Burlington, Vt.	W. M. Flagg	441	11	6	6	3	7/1	3	50
University of Virginia Hospital[2]	Charlottesville, Va.	S. A. Yost	705	3,102	10	6	4	.....	3	25
Medical College of Virginia Hospital Division[2]	Richmond, Va.	A. L. Dodson	601	2,558	31	11	3	.....	3	...
St. Mary's Hospital[2]	Huntington, W. Va.	C. A. Hoffman	532	.....	22	4	1	7/1	3	100
La Crosse Lutheran Hospital[2,1]	La Crosse, Wis.	A. Gundersen	408	.....	8	7	1	7/1	1	150
Madison General Hospital[2]	Madison, Wis.	I. R. Sisk	767	.....	13	7	1	.....	2	75
State of Wisconsin General Hospital[2]	Madison, Wis.	I. Sisk	539	.....	12	9	3	1/1, 7/1	3	25
Milwaukee County Hospital[2,1]	Milwaukee	J. C. Sargent	925	3,167	68	22	3	7/1	2	175.50

Numerical and Other References

a. Salary established by government pay tables.
*. Indicates hospitals approved for training interns.
†. Indicates temporary approval.
‡. Service includes training in Ophthalmology.
1. Residencies open to women.
2. Approved for training in Syphilology only.
3. Includes one year fellowship in Immuno-Hematology.
4. May include one year in the Department of Metabolic and Endocrine Diseases.
5. May include six months assignment to Department of Rehabilitation and Physical Medicine approved program.
6. Clinical data included in Psychiatry.
7. Clinical data included in Neurology.
8. Includes Fellowships.
9. Apply: Office of Graduate Medical Education; University of Colorado Medical Center.
10. Apply: Medical College State of South Carolina.
11. Clinical data included in Otolaryngology.
12. Affiliated with Bingham Associates Laboratory, Holyoke, Mass.
13. Includes assignment at Urologic Clinic, Philadelphia.

The following hospitals offer acceptable training which is integrated with or contributing to the fully approved program in the listing of which the footnote reference appears.

14. Brooke General Hospital, 4th Army Medical Laboratory, and Medical Field Service School.
15. Walter Reed General Hospital and Army Medical Department Research and Graduate School.
16. Veterans Administration Hospital, Newington, Conn.
17. Shriners Hospital for Crippled Children, Salt Lake City.
18. Lakeville State Sanatorium, Middleboro; New England Peabody Home, Newton Center; Boston City Hospital, Boston.
19. North Carolina Orthopedic Hospital, Gastonia and Georgia Warm Springs Foundation, Warm Springs.
20. Bishop DeGoesbriand Hospital, Burlington, Vt.
21. Louisville General Hospital and Louisville Childrens Hospital.
22. Emory University Hospitals and Clinics.
23. Genesee Hospital, Rochester, N. Y.
24. Norton Infirmary and Veterans Administration Hospital, Louisville General Hospital, Louisville, Ky.
25. Sea View Hospital and St. Vincent's Hospital, Staten Island, N. Y.
26. New York Orthopaedic Dispensary and Hospital.
27. Good Samaritan and St. Vincent's Hospital, Portland, Ore.
28. Lakeville State Sanatorium, Middleboro, Mass.
29. Free Hospital for Women, Brookline, Mass.
30. Stanford University Hospital and University of California Hospital, San Francisco.
31. Georgetown University Hospital and George Washington Hospital, Washington, D. C.
32. Institute of Ophthalmology
33. Veterans Administration Hospital, Fort Logan, Colo.
34. Betty Bacharach Home, Longport, N. J.
35. Harlem Hospital, New York City.
36. Holy Ghost Hospital, Cambridge, Mass.; and Jewish Memorial Hospital, Roxbury, Mass.
37. Permanente Foundation Hospital and Stanford Convalescent Home.
38. St. Francis Hospital.
39. Veterans Administration Hospital, Aspinwall, Pa.
40. Bryan Memorial Hospital, Lincoln, Neb.
41. South Bend Medical Foundation, South Bend, Ind.
42. Children's Hospital, Louisville, Ky.
43. Affiliated with University of Louisville School of Medicine; includes services at the U. S. P. H. Hospital, Lexington, Ky., the Mental Hygiene Clinic, Louisville, Ky.; and the Norton Memorial Infirmary, Louisville, Ky.
44. Cowell Memorial Hospital, Berkeley, Calif.
45. Mary Hitchcock Memorial Hospital, Hanover, N. H.
46. Children's Orthopedic Hospital, Seattle, Washington.
47. Arlington Hospital, Arlington, Va.
48. Institute of Pennsylvania Hospital, Philadelphia.
49. Babies Hospital, New York City.
50. Longview State Hospital, Cincinnati, Ohio.
51. Nebraska Methodist Hospital, Omaha.
52. Children's Hospital of Philadelphia.
53. Roseland Community Hospital, Chicago.
54. St. Agnes Hospital, White Plains, N. Y.
55. St. Christopher's Hospital, Temple University Hospital and Philadelphia Hospital for Contagious Diseases.
56. Alexandria Hospital, Alexandria, Va.
57. Children's Hospital of Philadelphia.
58. Milwaukee Hospital and Martha Washington Home, Milwaukee.
59. Minneapolis General Hospital and Veterans Administration Hospital, Minneapolis and Veterans Administration Hospital, St. Cloud, Minn.
60. City-County Hospital, Dallas.
61. Neurological Institute, New York City.
62. House of Good Samaritan, Boston, Mass.
63. Minneapolis General Hospital and Veterans Administration Hospital, Minneapolis.
64. Sloan Hospital for Women, New York City.
65. Coney Island Hospital, Brooklyn, New York.
66. St. Francis Hospital, Columbus, Ohio.
67. St. Vincent's Infant and Maternity Hospital, Chicago.
68. Dr. W. H. Groves Latter-Day Saints Hospital, Holy Cross Hospital, St. Mark's Hospital, Salt Lake County General Hospital, Veterans Administration Hospital, Salt Lake City.
69. Presbyterian Hospital, Woman's Hospital, Rye and Ear Hospital, Elizabeth Steele Magee Hospital, Children's Hospital and Western Psychiatric Institute and Clinic, Pittsburgh

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

535 NORTH DEARBORN STREET - - - CHICAGO 10, ILL.

Edited by
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Editor for Current Medical Literature, GEORGE HALPERIN, M.D.

Subscription price - - - - Twelve dollars per annum in advance

Cable Address - - - - "Medic, Chicago"

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SATURDAY, APRIL 15, 1950

ANNUAL REPORT ON INTERNSHIPS AND RESIDENCIES

In this issue the Council on Medical Education and Hospitals presents its twenty-fourth Annual Report on Internships and Residencies. The first list of hospitals, approved by the Council on Medical Education and Hospitals for intern training, was published in THE JOURNAL in 1914. In early Hospital Numbers of THE JOURNAL, general hospitals were listed which offered approved training, and a separate section was devoted to "hospitals for the insane" and "other special hospitals." The latter two groups of hospitals offered approved training in special fields. The original list included 508 approved hospitals which offered positions for 2,667 interns.

The first formal report of the Council on Internships and Residencies was presented in the Hospital Number of THE JOURNAL in 1927. In the same issue, for the first time, a separate section was devoted to approved residencies in the specialties, which, for several years thereafter, were referred to as "higher internships." There were 270 hospitals included in the first list, with 1,699 residencies offered in various specialties, including anesthesia, dermatology, obstetrics-gynecology, medicine, neuropsychiatry, ophthalmology, otolaryngology, pathology, pediatrics, radiology, surgery, tuberculosis, urology and general practice. It is of interest that the Council has again set up standards for residencies in general practice, an initial list of hospitals approved in this category appearing in this issue.

The Council's Annual Report and lists of approved hospitals was published each year in the Hospital Number of THE JOURNAL, through 1948. In May of that year the Internship and Residency Number appeared as a special issue. It purports to furnish current data regarding hospitals conducting training programs for the guidance of physicians seeking appointments for internships or residencies.

The 1950 report shows there are now 799 hospitals approved by the Council to conduct intern training. They offer a total of 9,398 internships, an increase of 274 over the number available last year. The report points out that there is a trend toward an increased demand for intern service in those hospitals which are approved and cites the disproportionate increase in the number of positions available this year as compared with the total number of hospitals approved. For the first time the Council includes Veterans Administration hospitals in the list of federal services conducting approved intern training. While these hospitals have greatly expanded their residency training programs during the past several years, not until the past year did they also offer internships.

Residencies in general surgery this year are listed under two categories: those approved by the Council in concurrence with the American Board of Surgery and a second group, approved by the Council as offering satisfactory training in preparation for residencies in the surgical specialties.

The Council has announced in a statement prefacing the list of residencies in radiology that a survey of hospitals approved in this specialty has recently been completed by the American Board of Radiology collaborating with the Council. A complete list of approved programs in radiology based on the findings of this survey will appear in the Educational Number of THE JOURNAL, scheduled for publication September 9. Pending the publication of this revised list, hospitals are being notified that their present approval will remain in effect until July 1, 1951.

The statistical data in this report are made available through the cooperation of the hospitals included in the approved lists. For their contribution to the report, and for the assistance furnished by the federal services and the medical schools, as well as for the collaboration of the American Boards in evaluating residency training in these hospitals, the Council makes grateful acknowledgment.

APPROVED PROGRAMS IN SURGERY

In the list of Approved Residencies and Fellowships appearing in this issue, hospitals conducting approved training in general surgery are classified under two separate categories: those approved by the Council on Medical Education and Hospitals and the American Board of Surgery and a second group, approved by the Council as offering training in general surgery acceptable in preparation for residencies in the surgical specialties.

This dual listing of residencies in surgery has resulted from the announcement by the American Board of Surgery last June that after July 1, 1950 it would not accept training in hospitals offering residencies of less than three years' duration, unless the program was affiliated with or formed an integral part

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of a graded, fully approved residency.[1] In accordance with this announcement, residents qualifying for examination by the American Board of Surgery will be required to complete their training in a single hospital or group of hospitals whose programs have been integrated to assure the resident progressively graded training. An essential consideration in extending approval for three or four years of training in this specialty has been the degree of responsibility afforded the resident for the care and management of patients, including the opportunity for performing major surgical procedures. It is felt that the resident, particularly in the later stages of his training, should assume primary responsibility for operative work, as well as assist qualified surgeons in the performance of operations requiring a high degree of surgical skill and judgment. In the present listing, 451 hospitals have qualified for approval in this category.

There is, however, an appreciable number of hospitals throughout the country offering training in general surgery whose programs for one reason or another do not meet the requirements for approval at the three or four year level. Many of these hospitals have not found it practicable to develop a fully organized three or four year training plan. In some the amount and diversity of clinical material available for teaching precludes their being fully approved. In others the assumption by the resident of primary responsibility for major surgical procedures is not feasible. Within the limitations mentioned, these hospitals offer supervised experience in general surgery which has a place in the training of residents, particularly those qualifying for examination by the surgical specialty boards. Six American boards require one or two years of training in general surgery as a prerequisite to, or as a part of, residency training in their respective fields. In these instances the degree of responsibility given the resident during his training in general surgery is not of primary importance. It is assumed that, during the course of his residency in the specialty itself, the resident will be given adequate opportunity to develop his surgical skill and judgment. A comprehensive orientation to the field of general surgery, including diagnosis, the principles of preoperative and postoperative care and applied instruction in the basic sciences, is of paramount importance.

On this basis, the Council has approved 149 hospitals as offering satisfactory training in general surgery in preparation for residencies in the surgical specialties. It is estimated that about 600 residents will require training of this type annually. The Council is confident that hospitals approved in this category will provide these physicians with training which will give them a sound background for subsequent residencies in their chosen fields.

1. J. A. M. A. 141:186 (Sept. 3) 1949.

ROCKY MOUNTAIN SPOTTED FEVER

The chief vectors for the transmission to man of Rocky Mountain spotted fever are the wood tick and the American dog tick. The former is found throughout the Rocky Mountain region and adjacent areas and the latter on the great plains and eastward to the Atlantic coast, to the South reaching into Mexico, and in Canada, eastward from southern Manitoba to Labrador. The wood tick becomes active during the spring and early summer. The dog tick appears in late spring and remains active longer during the summer. In a recent study, Harrell [1] points out that ticks hang from the lower branches of small bushes and shrubs, waving their legs, and thus transfer easily to the hair of passing warm-blooded animals.

Rocky Mountain spotted fever is a severe rickettsial disease, which occurs when a human being is bitten by an infected tick. The rickettsias are found in the blood early in the disease, but they are difficult to culture as they grow only in the presence of living cells. The important endemic foci in the United States are Wyoming, Montana, Colorado and the Southern Atlantic states (Virginia, Maryland and North Carolina). In the West the majority of cases appear between April and June, and in the East, during July and August. Throughout the United States more cases occur during July than in any other month. In the East, the vector is the common dog tick. Many cases occur in persons seeking recreation and on vacation in rural or suburban areas. Protection against infection lies in preventing the attachment of a tick to the skin. High boots, leggings or socks worn outside the trousers hinder the tick from attaching itself to the leg, but, if there are no openings there in the clothing, the tick will crawl up and attach itself on the neck. In tick-infested country one should pass the hand frequently over the back of the neck and behind the ears to remove ticks that may not be as yet attached to the skin. After becoming attached ticks seldom transfer the infection until they have fed on the victim for several hours. Therefore, inspection of the body and clothing twice daily when in infested country is usually sufficient. A tick attached to the skin should be removed immediately as gently as possible to prevent squeezing the feces out of the insect and on the skin. If the tick is pulled off with the finger, it should be handled with a small piece of paper and the abrasion gently touched with a disinfectant, such as iodine or a mercurial antiseptic, or gently washed with soap and water.

There are vaccines which have definite protective value for a period of less than a year. Before the vaccine is injected under the skin or into the muscle in allergic persons, an intradermal test should be made to determine sensitivity to the vaccine. Tourists who go to endemic areas and persons who live in areas where

1. Harrell, G. T.: Rocky Mountain Spotted Fever, Medicine 28:333 (Dec.) 1949.

the strain of Rickettsia is highly virulent should be vaccinated.

No test is available which will quickly establish a diagnosis early in the course of the disease. The agglutination test, the most widely used confirmatory diagnostic procedure, does not differentiate the various rickettsial infections. The complement fixation test is specific for the spotted fever strain of rickettsias, but it is technically difficult and the results are dependable only in experienced hands.

The mortality of Rocky Mountain spotted fever throughout the United States averaged 23 per cent in 4,033 cases reported during the period 1939-1946. Fortunately, two of the newer antibiotics, aureomycin and chloramphenicol, give promise of being effective in the treatment of Rocky Mountain spotted fever.

Rickettsial diseases of man related to spotted fever and transmitted by ticks occur throughout the world. A disease called São Paulo typhus in South America apparently is identical with Rocky Mountain spotted fever of North America. Kenya fever in Africa apparently is related to Rocky Mountain spotted fever. Marseille fever and escarro-nodulaire in Mediterranean countries differ only in that in these a primary site of inoculation is evidenced by an ulcer. In other parts of the world, Russia, India and North Queensland, tick-borne rickettsioses are often called tick typhus. All these strains of rickettsias appear to be immunologically related. Wilder [2] recently reviewed the work of Howard Ricketts and his associates, who made fundamental contributions to the knowledge of the rickettsial diseases.

2. Wilder, R. M.: The Rickettsial Diseases: Discovery and Conquest, Arch. Path. 49:479 (April) 1950.

READING DISABILITIES IN CHILDREN

There is a group of children, estimated by Monroe to amount to about 12 per cent of all children in the United States, who fail to learn to read as well as the average of their class. These children have normal or better than normal intelligence and normal social and vocabulary development. Most of these children have normal vision. Occasionally one encounters dyslexia associated with left handedness, particularly when attempts had been made to convert left handedness to right handedness. The disability manifests itself in a variety of ways, such as confusion of one consonant with another, as *b* for *d*, *p* for *q* and *t* for *f*, or a reversal of syllables, words or entire sentences, as in mirror writing, or complete failure to recognize a word. Criticism by the teacher and parents makes the child lose confidence in his ability to do school work and leads to the development of various emotional problems, with psychologic blocks which further aggravate the condition.

The etiology of the developmental *dyslexia* is not clearly understood. It is doubtful that there is in these children any underlying organic lesion, such as the agenesis of the dominant angular gyrus. The absence of any other evidence of intracranial damage speaks against this hypothesis. Emotional factors such as fear, anxiety, rivalry, jealousy, hostility for the parent or the teacher and a feeling of inferiority undoubtedly play an important role in creating these difficulties. It is significant that many of the complexes associated with the reading disability disappear with improvement in reading.

Crisp [1] and Rychener [2] believe with Orton that the new method of teaching reading, the so-called "flash" method, is an important contributory factor in the creation of these disabilities. The "flash" method employs whole words on cards with pictorial representation to develop pure visual associations. The method was expanded into a phrase and later into a sentence method. The child on entering school immediately learns to read whole sentences. The analysis of the sentence into individual words and the analysis of individual words into phonic sounds are taught secondarily, when the child already has an extensive reading vocabulary based on visual memory rather than on synthesis of words. Berner and Berner [3] point out that, while this method produces rapid and intelligent readers, it tests to the limit the child's power of attention and concentration. These authors feel that certain minor difficulties such as low hypermetropia and deficient fusion, which were of minor importance under the older methods of teaching, have now become significant.

Crisp, Rychener and Orton believe that a small percentage of children need phonetic training. According to Orton among children who had been taught by the "flash" method there were three times as many cases of reading difficulties as among those who had been taught by the phonetic method. Crisp feels that emphasis on speed rather than on accuracy in the development of a new skill, such as reading, must increase the subconscious sense of defeat and conflict in a child's mind, to be followed by failure in further efforts.

The important elements in the treatment of these disabilities are their earliest recognition and sympathetic handling of the problem. Training in phonetics, remedial reading and the employment of every means to restore the child's confidence in his ability to read make for favorable prognosis. The advantages of the older, the phonetic method, as contrasted with the new, the "flash" method, particularly as related to developmental dyslexia, is a problem to be solved by the cooperation of the ophthalmologist and the pedagog.

1. Crisp, W. H.: The Psychology of the Poor Reader, Am. J. Ophth. 33:235 (Feb.) 1950.
2. Rychener, R. O., and Robinson, J.: Reading Disabilities and the Ophthalmologist, Tr. Am. Acad. Ophth. 53:107 (Nov.-Dec.) 1948.
3. Berner, G. E., and Berner, D. E.: Reading Difficulties in Children, Arch. Ophth. 20:829 (Nov.) 1938.

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The complexity of the problem of dyslexia, involving endocrine inbalances, dietetic errors, occasionally ocular difficulties and psychologic problems, such as the emotional reaction of the child toward the teacher and the parent, makes it evident that supplementary tutoring by a parent or teacher will seldom accomplish the goal. Dyslexia in all its phases is best treated in special institutions staffed by specialists in various fields and devoted to the study and treatment of the various reading disabilities. The Reading Difficulty Center of Columbus, Ohio, the Memphis Orthoptic Center or the Dyslexia Memorial Institute in Chicago [4] are some of the institutions engaged in this work.

Current Comment

RESIDENCIES IN GENERAL PRACTICE

In December 1948, the Council adopted standards for approval of residencies in general practice. Hospitals which were approved under the general residency classification were advised that they would be expected to organize their training program in accordance with the new requirements if they wished to retain their approved status. In this issue the Council lists 32 hospitals which have developed acceptable programs based on the requirements outlined in the Essentials of Approved Residencies and Fellowships. A number of these residencies are offered in teaching hospitals under the aegis of a medical school. That these schools have taken the leadership in sponsoring programs in general practice at the graduate training level is most encouraging. A hospital requesting approval for residency training in general practice must meet the same general requirements as does a hospital offering residency training in a specialty. These residencies provide for supervised training in the major clinical divisions of internal medicine, surgery, obstetrics-gynecology and pediatrics and in the special services of anesthesiology, radiology and pathology. The programs which have been approved, while varying in the scope and extent of the training provided, are designed specifically to meet the needs of the young physician intending to enter general practice. Several of these hospitals have already notified the Council that they have had many more applications for the positions available than they have been able to accept. While complete statistics are not available, it seems probable that a greater proportion of medical school graduates are planning to enter general practice than has been true for the past several years. It is felt that this trend will be stimulated by the development of residencies of the type and quality of those presently approved. On completing residencies of this nature, the young doctor can begin his practice with the assurance that he has had advanced training comparable to that of his colleagues who finish residencies in the specialties.

4. Schmieding, A.: How Dyslexia Memorial Institute Helps the Non-Reader, Exceptional Children 13:36 (Nov.) 1946. MacMillan, D. P.: Dyslexia (Reading Difficulty), Library J. 71:890 (June 15) 1946.

APPROVED RESIDENCIES

The number of residencies approved by the Council on Medical Education and Hospitals, as reported in this issue, has risen to a total of 18,669, an increase of 8 per cent over the number approved last year. Significant increases in the number of residencies offered were reported in the following divisions: anesthesiology, internal medicine, neurologic surgery, neurology, obstetrics-gynecology, pediatrics, psychiatry and radiology. It is evident that a point has been reached in the residency field where the number of positions available in approved hospitals will exceed appreciably the number of potential applicants. The greatly increased demand for residency training which existed in the postwar period has been largely met. In the next few years candidates for appointment to residency positions will be drawn primarily from interns completing their service. It is apparent that there will not be a sufficient number of interns available to fill all positions offered. Further, an increasing proportion of medical school graduates have indicated their interest in general practice rather than in training and, later, practice in a specialty. Hospitals which have organized their house staff on the basis of an expanding residency program may well consider, at this time, the fact that a reduction in the number of residency applicants can be anticipated. The Council's report points out that there were 1,179 positions in approved residency programs reported vacant last year. With a decrease in the number of physicians seeking residency training probable, the problem of meeting the hospitals' demand for residents will require careful consideration.

NEW REMEDIES FOR RHEUMATOID ARTHRITIS

Rapid and dramatic remission of signs and symptoms of rheumatoid arthritis by cortisone and the adrenocorticotropic hormone, ACTH, has given the medical profession a new standard of comparison for evaluation of therapeutic agents in this disease. Because of the scarcity of these hormones, it was inevitable that certain substitutes should be advocated as "nearly as good." Thus, recent months have seen claims advanced for pregnenolone, epinephrine, combinations of testosterone, estrogen and pregnenolone, and desoxycorticosterone acetate with ascorbic acid. Many of these claims have been attended by flurries of favorable publicity in the lay press, which resulted in considerable pressure from the public for the use of these products by practicing physicians. This situation is unfortunate, for none of these products has produced results comparable with those obtained with cortisone and the adrenocorticotropic hormone. Some of the newer remedies and technics offer interesting possibilities for further study, but none is beyond the stage of experimental investigation. Until additional convincing data are forthcoming, the medical profession must advise its patients that the remedies recently proposed for arthritis cannot be placed in general use. In fact, some of the proposals eventually may be proved unsatisfactory for even restricted use.

ORGANIZATION SECTION

Official Notes

PARTICIPATION IN THE PROGRAM OF THE DENVER CLINICAL SESSION

Fellows of the American Medical Association desiring to offer papers or clinical presentations for the program of the Fourth Annual Clinical Session of the Association, to be held Nov. 28 to Dec. 1, 1950 in Denver, should make application before May 15. Their applications should be addressed to Dr. Samuel P. Newman, Chairman, Committee on Arrangements, 835 Republic Building, Denver 2, Colo.

The Council on Scientific Assembly of the American Medical Association has requested that all such applications be sent directly to the local committee. Applications may be in the form of a letter but should include full name and address of the applicant, the title of the paper and a 100 to 200 word summary of the proposed presentation.

Washington Letter

(From a Regular Correspondent)

April 10, 1950.

House Debating Vital Health and Hospital Issues

Floor debate in the House of Representatives on the $29 billion federal budget for 1950-1951, interrupted by the Easter recess and due to be resumed April 18, is producing a voluminous presentation on the government's huge medical establishment. Medical and hospital care of veterans, operation of Army and Navy hospitals, federal support of privately conducted medical research and administration of the Hill-Burton Hospital Construction Act are among the major problems figuring prominently in the debate.

Scarcely had the House begun consideration of the appropriations bill on April 3 than Representatives Frank Keefe (Wisconsin), Edith Nourse Rogers (Massachusetts) and E. P. Scrivner (Kansas), all Republicans, made separate speeches emphasizing that the current retrenchment of Veterans Administration medical services cannot be attributed to withholding of adequate funds by Congress.

On the following day, Representative Keefe, who is acknowledged to be the best informed member of Congress on activities of the U. S. Public Health Service, spoke for nearly two hours in favor of increased appropriations for support of research and expansion of hospital construction with federal aid.

"There is a demand in certain parts of the country and in some quarters for the establishment of some sort of system of public health insurance," he said, "and it is directly associated with and made attractive to the public through the promise that, if such a program is established, it will be able more effectively to bring to all the people the benefits of advanced scientific knowledge and improved hospital and medical service.

"It is this natural allurement that is being overplayed, in my judgment, by those who advocate compulsory national health insurance. I think we can agree that the ultimate objective of any program, compulsory or voluntary, is to achieve a wider distribution of hospital and medical services and to bring to a greater number of our people the prospects of better health. In considering this ultimate objective, I have long felt that we should not merely denounce the proposal of Mr. Oscar Ewing and those associated with him, those who clamor for compulsory national health insurance, without being able to suggest a solution for an admitted problem by tendering a better program more in keeping with the American system of liberty and freedom and free from the withering and destructive influence of bureaucratic or socialistic control.

"To suggest an alternative proposal it is not necessary to present a detailed and utterly new concept of medicine and hospital care. In my judgment, the answer to the Ewing proposal is to be found in the over-all progress that is being made in the hospital construction program, in the expanded research program, in the development of state and local public health services, in sanitation, in pollution control development, in aids to develop better medical schools, clinics, laboratories and facilities, in the development of more and better doctors and researchers and in the constant education of the public so that they will avail themselves of these facilities before it is too late."

With that as his theme, Representative Keefe pleaded with the House to overrule the appropriations committee's recommendation that federal funds under the Hill-Burton law for hospital expansion be cut 50 per cent, to $75 million, urged allocation of $4 million to aid hospitals, clinics and schools wishing to improve physical facilities for research in cardiovascular diseases and made similar appeals in behalf of government support of cancer and mental health research.

When the House adjourned April 6 for its 12 day holiday vacation, all signs were that, when debate on the appropriations bill is resumed, several amendments will be offered to restore reductions in the Public Health Service budget which were made by the appropriations committee. Likewise, it is probable other amendments will be introduced to increase funds for the medical services of Army, Navy and Veterans Administration.

Military Hospital Inquiry Expected to be Continued

One week after its return to Washington after a 12 day inspection tour of Army and Navy hospitals, a special House subcommittee was scheduled to leave again April 3 to visit the Army's Murphy (Boston) and Valley Forge (Phoenixville, Pa.) general hospitals in connection with its study of a Department of Defense order abolishing these and three other large military hospitals. It was considered likely that the subcommittee, headed by Representative L. Mendel Rivers (Democrat, South Carolina), will resume public hearings on the cutback order soon after termination on April 18 of the Easter recess which is being taken by the House.

Medical Legislation

STATE LEGISLATION

Kentucky

Bill Introduced.—S. Res. 63 proposes to direct the board of trustees of the University of Kentucky to make a careful and impartial study of possible steps to alleviate the existing shortage of practising physicians in rural areas of the state with particular reference to the possibility of providing facilities for the education and training of additional Kentuckians for the profession of medicine.

Bills Enacted.—H. 237 was approved March 16, 1950. It makes it unlawful for any employer to require any employee or applicant for employment to pay the cost of a medical examination or the cost of furnishing any records required by the employer as a condition of employment. H. 262 was approved March 25, 1950. It makes it unlawful for any person to possess, manufacture, sell, dispense, prescribe or administer any barbiturate except from a licensed pharmacist on prescription of a practitioner. A practitioner is defined to mean a person licensed under the professional licensing laws of the state to prescribe and administer medicines. H. 443 was approved March 23, 1950. It amends the law relating to the organization of medical service plans by providing for the organization of hospital service plans also. S. 123 was approved March 25, 1950. It amends the law relating to divorce by making permanent and incurable insanity a ground for divorce in Kentucky. H. 226 was approved March 22, 1950. It amends the workmen's compensation act by providing, among other things, that, if an employer fails to furnish medical, surgical and hospital treatment reasonably required, he shall be liable for the reasonable expense, within certain limits, incurred by or on behalf of the employee in providing such treatments, and it also authorizes an employee to call in any available physician or surgeon in an emergency.

Maryland

Bill Enacted.—H. 45 has become chapter 82 of the Laws of 1950. It makes it unlawful for any person, firm or corporation to sell or offer for sale any contraceptive device by means of a vending machine or other automatic device whether or not such contraceptive is advertised as such or as a prophylactic.

Massachusetts

Bills Introduced.—H. 2325 proposes a continuation of a special commission making an investigation and study relative to the admission or **commitment of persons to institutions** under the jurisdiction of the department of mental health. H. 2341, to amend the workmen's compensation act, proposes to permit the payment of **reasonable fees to physicians** who appear and testify in behalf of an insurer. S. 525 proposes that no settlements or releases signed by **persons confined in a hospital** shall be admissible in evidence or used or referred to in any manner at the trial of any action to recover damages for personal injuries, unless, at least five days prior to the obtaining or procuring of such general release or statement, the injured party had signified in writing his willingness that such general release or statement be given.

New Jersey

Bills Introduced.—S. C. Res. 7 proposes the creation of a commission to study the advisability of extending the **office of chief medical examiner** to all counties and the assumption of the powers and duties of coroners, particularly in respect to sudden, violent and casual deaths, by such chief medical examiners. S. J. Res. 8 proposes the creation of a commission to make a thorough and exhaustive research and study of the problem of the apprehension, confinement, care and treatment of the **chronic misdemeanant alcoholic and drug addict**, with special attention to the matter of prevention.

Bill Enacted.—S. J. Res. 3 has become Joint Resolution Chapter 2, of the Laws of 1950. It designates the month of April as **Cancer Control Month.**

New York

Bill Enacted.—A. 151 has become chapter 185 of the Laws of 1950. It provides that the **commissioner of mental hygiene**, when an emergency exists by reason of a lack of a sufficient number of physicians in any institution, may present evidence thereof to the civil service commission which, after due inquiry, may determine the existence of an emergency and waive the requirements of the civil service law as to the citizenship of applicants in competitive examinations for the position of senior psychiatrist or supervising psychiatrist in such institution until the emergency has ceased to exist.

Rhode Island

Bill Introduced.—S. 265 proposes to amend the **law relating to medical examiners** by, among other things, increasing the salary of the medical examiner and county medical examiners, providing for compensation for travel expense of such officials and making the appointment of county medical examiners mandatory rather than permissive.

Texas

Bill Enacted.—S. 34-X was approved March 13, 1950. It provides for the creation of a state **board of tuberculosis nurse examiners** to license and examine applicants desiring to receive certificates as tuberculosis nurses.

Coming Medical Meetings

Aero Medical Association, Chicago, May 29-31. Dr. Thomas H. Sutherland, 214 S. State St., Marion, Ohio, Secretary.

Alabama, Medical Association of the State of, Birmingham, April 20-22. Dr. Douglas L. Cannon, 519 Dexter Ave., Montgomery, Secretary.

American Association for Thoracic Surgery, Denver, Colo., April 15-19. Dr. Brian Blades, 901 Twenty-Third St. N.W., Washington, D. C., Secretary.

American Association of Industrial Physicians and Surgeons, Chicago, Hotel Sherman, April 24-28. Dr. Frederick W. Slobe, 28 E. Jackson Blvd. Chicago 4, Secretary.

American Association of Genito-Urinary Surgeons, Hershey, Penn., Hotel Hershey, May 24-26. Dr. Norris J. Heckel, 122 S. Michigan Ave., Chicago 3, Secretary.

American Association of the History of Medicine, Boston, May 21-23. Dr. Benjamin Spector, 416 Huntington Ave., Boston 15, Secretary.

American Association on Mental Deficiency, Columbus, Ohio, Hotel Deshler-Wallick, May 16-20. Dr. Neil A. Dayton, P. O. Box 96, Willimantic, Conn., Secretary.

American Broncho-Esophagological Association, San Francisco, Mark Hopkins Hotel, May 25-26. Dr. Edwin N. Broyles, 1100 N. Charles St., Baltimore 1, Secretary.

American College of Physicians, Boston, April 17-21. Dr. George Morris Piersol, 4200 Pine St., Philadelphia, Secretary General.

American Congress on Obstetrics and Gynecology, New York, Hotel Pennsylvania, May 14-19. Dr. F. Bayard Carter, Duke Medical School, Durham, N. C., Secretary.

American Gastro-Enterological Association, Atlantic City, April 28-29. Dr. Dwight L. Wilbur, 655 Sutter St., San Francisco, Secretary.

American Gastroscopic Society, Atlantic City, April 28-29. Dr. H. Marvin Pollard, University Hospital, Ann Arbor, Mich., Secretary.

American Geriatrics Society, New York, Hotel Commodore, June 1-3. Dr. Malford W. Thewlis, 25 Mechanic St., Wakefield, R. I., Secretary.

American Gynecological Society, White Sulphur Springs, W. Va., The Greenbrier, May 11-13. Dr. Norman F. Miller, 1313 E. Ann St., Ann Arbor, Mich., Secretary.

American Laryngological Association, San Francisco, May 23-24. Dr. Louis H. Clerf, 128 S. Tenth St., Philadelphia 7, Secretary.

American Laryngological, Rhinological and Otological Society, San Francisco, May 25-27. Dr. C. Stewart Nash, 277 Alexander St., Rochester 7, N. Y., Secretary.

American Ophthalmological Society, Hot Springs, Va., The Homestead, May 31-June 2. Dr. Maynard C. Wheeler, 30 W. 59th St., New York 19, Secretary.

American Orthopedic Association, Virginia Beach, Va., May 23-26. Dr. C. Leslie Mitchell, Henry Ford Hospital, Detroit 2, Secretary.

American Otological Society, San Francisco, May 21-22. Dr. Gordon D. Hoople, 1100 E. Genesee St., Syracuse 10, N. Y., Secretary.

American Pediatric Society, French Lick, Ind., May 8-10. Dr. Henry G. Poncher, 1819 W. Polk St., Chicago 12, Secretary.

American Physiological Society, Atlantic City, April 17-21. Dr. Milton O. Lee, 2101 Constitution Ave., Washington 25, D. C., Executive Secretary.

American Psychiatric Association, Detroit, May 1-5. Dr. Leo H. Bartemeier, General Motors Bldg., Detroit 2, Secretary.

American Psychoanalytic Association, Detroit, Hotel Statler, April 28-30. Dr. LeRoy M. A. Maeder, 1910 Rittenhouse Square, Philadelphia 3, Secretary.

American Psychosomatic Society, Atlantic City, Chalfonte-Haddon Hall, April 29. Dr. Sydney G. Margolin, 714 Madison Ave., New York 21, Secretary.

American Radium Society, New York, Roosevelt Hotel, May 25-26. Dr. Hugh F. Hare, 605 Commonwealth Ave., Boston 15, Secretary.

American Society for Clinical Investigation, Atlantic City, May 1. Dr. Paul B. Beeson, Grady Hospital, Atlanta 3, Ga., Secretary.

American Society for Pharmacology and Experimental Therapeutics, Atlantic City, April 17-21. Dr. Harvey B. Haag, Medical College of Virginia, Richmond 19, Secretary.

American Surgical Association, Colorado Springs, Colo., April 19-21. Dr. Nathan Womack, University Hospitals, Iowa City, Iowa, Secretary.

American Urological Association, Washington, D. C., Hotel Statler, May 29-June 1. Dr. Charles H. deT. Shivers, Boardwalk National Arcade Bldg., Atlantic City, N. J., Secretary.

Arizona State Medical Association, Phoenix, Hotel Westward Ho, April 30-May 4. Dr. Frank J. Milloy, 234 N. Central Ave., Phoenix, Secretary.

Arkansas Medical Society, Fort Smith, April 17-19. Dr. William R. Brooksher, 602 Garrison Ave., Fort Smith, Secretary.

Association for Physical and Mental Rehabilitation, Memphis, Tenn., Hotel Peabody, May 23-27. Mr. Benjamin Forman, 57 Granger St., Canandaigua, N. Y., Secretary.

Association of American Physicians, Atlantic City, May 2-3. Dr. Henry M. Thomas Jr., 1201 N. Calvert St., Baltimore 2, Secretary.

California Medical Association, San Diego, April 30-May 3. Dr. L. Henry Garland, 450 Sutter St., San Francisco, Secretary.

Connecticut State Medical Society, Waterbury, May 2-4. Dr. Creighton Barker, 160 St. Ronan St., New Haven, Secretary.

Federation of American Societies for Experimental Biology, Atlantic City, April 17-21. Dr. Milton O. Lee, 2101 Constitution Ave., Washington 25, D. C., Secretary.

Florida Medical Association, Hollywood, April 23-26. Dr. Robert B. McIver, P. O. Box 1018, Jacksonville, Secretary.

Georgia, Medical Association of, Macon, Hotel Dempsey, April 18-21. Dr. Edgar D. Shanks, 478 Peachtree St. N.E., Atlanta, Secretary.

Hawaii Territorial Medical Association, Hilo, May 4-7. Dr. I. L. Tilden, Mabel Smyth Bldg., Honolulu 13, Secretary.

Illinois State Medical Society, Springfield, Illinois State Armory, May 23-25. Dr. Harold M. Camp, 224 S. Main St., Monmouth, Secretary.

International and Fourth American Congress on Obstetrics and Gynecology, New York, Hotel Pennsylvania, May 14-19. Dr. Fred L. Adair, 161 E. Erie St., Chicago 11, Information Headquarters.

International Congress on Asthma, Mont Dore, France, June 3-4. Secretariat, 59 rue Bonaparte, Paris, France.

Iowa State Medical Society, Burlington, April 23-26. Dr. Allan B. Phillips, 406 Sixth Ave., Des Moines 9, Secretary.

Kansas Medical Society, Wichita, May 15-18. Dr. D. D. Vermillion, 512 New England Bldg., Topeka, Secretary.

Louisiana State Medical Society, Baton Rouge, April 24-26. Dr. P. T. Talbot, 1430 Tulane Ave., New Orleans 13, Secretary.

Maryland, Medical and Chirurgical Faculty of the State of, Baltimore, April 25-26. Dr. George H. Yeager, 1211 Cathedral St., Baltimore 1, Secretary.

Massachusetts Medical Society, Boston, Hotel Statler, May 16-19. Dr. H. Quimby Gallupe, 8 Fenway, Boston 15, Secretary.

Mississippi State Medical Association, Jackson, May 9-11. Dr. T. M. Dye, Box 295, Clarksdale, Secretary.

National Tuberculosis Association, Washington, D. C., April 25-28. Dr. James E. Perkins, 1790 Broadway, New York 19, Managing Director.

Nebraska State Medical Association, Lincoln, Hotel Cornhusker, May 1-4. Dr. R. B. Adams, 1315 Sharp Bldg., Lincoln, Secretary.

New Jersey, Medical Society of, Atlantic City, Haddon Hall, May 22-24. Dr. Marcus H. Greifinger, 315 W. State St., Trenton 8, Secretary.

New Mexico Medical Society, Las Cruces, May 4-7. Dr. H. L. January, 4852 Southern Ave., Albuquerque, Secretary.

New York, Medical Society of the State of, New York, May 8-12. Dr. Walter P. Anderton, 292 Madison Ave., New York 17, Secretary.

North Carolina, Medical Society of the State of, Pinehurst, The Carolina, May 1-3. Dr. Millard D. Hill, 15 W. Hargett St., Raleigh, Secretary.

North Central Clinical Society, Cincinnati, Netherland Plaza Hotel, April 29. Dr. John H. Payne, 5 W. Fourth St., Cincinnati, Secretary.

North Dakota State Medical Association, Grand Forks, May 27-30. Dr. O. A. Sedlak, 702 First Ave. S., Fargo, Secretary.

Ohio State Medical Association, Cleveland, May 16-19. Mr. Charles S. Nelson, 79 E. State St., Columbus 15, Executive Secretary.

Oklahoma State Medical Association, Oklahoma City, May 14-17. Dr. Lewis J. Moorman, 210 Plaza Court, Oklahoma City, Secretary.

Rhode Island Medical Society, Providence, R. I. Medical Library, May 10-11. Dr. Morgan Cutts, 106 E. Francis St., Providence 3, Secretary.

Society of American Bacteriologists, Baltimore, May 15-19. Dr. John E. Blair, 1919 Madison Ave., New York 35, Secretary.

South Carolina Medical Association, Myrtle Beach, May 16-18. Dr. Julian P. Price, 105 W. Cheves St., Florence, Secretary.

South Dakota State Medical Association, Mitchell, May 20-23. Dr. Roland G. Mayer, 22½ S. Main St., Aberdeen, Secretary.

Texas, State Medical Association of, Fort Worth, May 2-5. Dr. Harold M. Williams, 700 Guadalupe St., Austin, Secretary.

Western Branch, American Public Health Association, Portland, Ore., May 30-June 1. Mr. Walter S. Mangold, University of California, Berkeley, Calif., Secretary.

GOVERNMENT SERVICES

ARMY

THIRD INTER-AGENCY HOSPITAL INSTITUTE

During the first week of the Inter-Agency Hospital Institute, held under the sponsorship of the Army Medical Department April 17 to May 5 at the Army Medical Center, Washington, D. C., the following subjects were discussed: hospital administration, government responsibility for hospitalization, executive leadership, personnel management principles, hospital nursing and medical education. These institutes are held every six months to give hospital managers of the three military and three nonmilitary agencies controlling government hospitals a wide concept of management of hospitals so as to create an objective attitude of leadership in hospital management and administration. Participating agencies are the Army, Navy, Air Force, Veterans Administration, Public Health Service and Bureau of Indian Affairs. Speakers scheduled for the first week of the institute were Mr. Fletcher C. Waller, Atomic Energy Commission; Eli Ginsberg, Ph.D., School of Business, Columbia University, New York; Dr. Malcolm T. MacEachern, director, Program in Hospital Administration, Northwestern University, Chicago; Miss Lucy Germaine, director, School of Nurses and Nursing Service, Harper Hospital, Detroit; Mr. George Henigan, Department of Speech, George Washington University, Washington, D. C.; Mr. F. A. McNamara, director, Hospital Division, Bureau of the Budget; Dr. R. D. Buerki, University of Pennsylvania School of Medicine, Philadelphia; Mr. Thomas R. Reid, McCormick and Company, Inc., Baltimore; Mr. George Bugbee, American Hospital Association, Chicago, and Mr. C. R. Uphoff, National Security Resources Board, Washington, D. C.

ADVISORY BOARD ON PATHOLOGY

The Scientific Advisory Board of the Armed Forces Institute of Pathology held its sixth meeting at that institution March 31. Dr. Shields Warren, Pathologist, Deaconess Hospital, Boston, was elected chairman for the year, succeeding Dr. Howard Karsner. Discussed at the meeting were plans for the new Armed Forces Institute of Pathology building, the status of integration of the Navy and Air Force into the Armed Forces Institute of Pathology and plans for long range problems. Other members of the board present were Dr. James Kernohan, Rochester, Minn.; Dr. Baldwin Lucke, University of Pennsylvania Medical School, Philadelphia; Dr. Robert A. Moore, Washington University, St. Louis; Dr. Arnold R. Rich, Johns Hopkins University Medical School, Baltimore; Dr. Milton C. Winternitz, National Research Council, Washington, D. C.; Dr. Henry A. Swanson, Washington, D. C., and Brigadier General George R. Callender, U. S. Army (retired), head, Laboratory Division, Veterans Administration, Washington, D. C.

RECENT APPOINTMENTS IN MEDICAL CORPS

The appointments of the following new medical officers have been approved by the President:

First Lieut. Alexander W. Ashford, Athens, Ga.
Capt. William P. Blocker Jr., El Paso, Texas.
Capt. Edward S. Bres Jr., New Orleans.
First Lieut. Warren C. Evans, Norfolk, Va.
Major Charles S. Finch Jr., Palo Alto, Calif.
Major Marcus H. Flinter, Arlington, Va.
Capt. Richard G. Hamill, Las Cruces, N. Mex.
Capt. James B. Hampton, Ancon, Canal Zone.
Major Everett G. King, Duncan, Okla.
First Lieut. Donald R. Korst, Hamburg, N. Y.
First Lieut. Alfred Lubart, New York.
Capt. David E. MacQuigg, Minetto, N. Y.
Major Edward S. Miller, St. Augustine, Fla.
First Lieut. Alois Pecsenik, Augusta, Ga.
First Lieut. Walter S. Price, Washington, D. C.
First Lieut. Richard A. Walsh, Brooklyn.
First Lieut. Matthew J. Weir, Mankato, Minn.

CIVILIAN CONSULTANTS TO EUROPEAN COMMAND

Dr. James H. Townsend of Tufts College Medical School, Boston, and Dr. Carl E. Johnson of Yale University College of Medicine, New Haven, Conn., who went to Europe April 5 as Army Medical Department consultants, will spend 30 days advising Army surgeons in the European Command.

PERSONAL

Col. Leon L. Gardner (MC, retired) has been appointed chief of preventive medicine of the city of Richmond, Va., and will also serve as associate professor of preventive medicine at the Medical College of Virginia.

AIR FORCE

RESERVE COMMISSIONS UNDER ROTC PROGRAM

Graduates of medical, dental, veterinary and pharmacology colleges who participate in the ROTC program may now receive commissions in the U. S. Air Force Medical Service Reserve. Previously, it was necessary for students in these categories who preferred reserve commissions in the Air Force to accept commissions in the Army and then request transfer. The new agreement provides that 20 per cent of the students taking ROTC training may receive reserve commissions in the Air Force Medical Service Reserve. This may be increased to 30 per cent should that number of students signify a desire for Air Force commissions. Medical, dental, veterinary and pharmacology students now participating in the first and second year advanced ROTC course are to make a statement of choice of service prior to May 1, 1950. At time of application for the advanced course, senior division, students will state to the professor of Military Science and Tactics their choice of service. By joint agreement, the Air Force will furnish officers to staff about 20 per cent of medical ROTC instructors. The medical ROTC program is administered by the Department of the Army. At present, 49 medical colleges, 18 dental colleges, 6 veterinary colleges and 4 pharmacology colleges have ROTC programs. Students may obtain full information from the professor of Military Science and Tactics in their college or university or on written request from the Surgeons General of the Army or Air Force, Washington 25, D. C.

PERSONAL

Dr. Josef P. Pitchotka of the pathology department of the School of Aviation Medicine, Randolph Field, Texas, has returned to Germany to accept the professorship of physiology at the University of Frieberg. Dr. Pitchotka, a German national, was brought to the School of Aviation Medicine in May 1947, under contract to continue war time experiments in the field of frostbite prevention and remedies.

Dr. Kurt Kramer, another German national working in the Physiology Department at the School of Aviation Medicine, has been invited to return to Marburg University, Germany, where he previously taught, but has requested an extension in order to complete experimental work now under way.

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PUBLIC HEALTH SERVICE

NEW CLINICAL SECTION IN HEART INSTITUTE

Establishment of a Clinical Section on General Medicine and Experimental Therapeutics as a part of the research program of the National Heart Institute of the Public Health Service was announced March 29. Dr. Luther L. Terry, chief of the Medical Service, U. S. Marine Hospital, Baltimore, will head the new section. At the outset the section will function as a clinic in the Baltimore U. S. Marine Hospital, where about 60 beds will be devoted to the program. The section will form a nucleus for the clinical staff of the National Heart Institute at the new Clinical Center of the National Institutes of Health which will open in Bethesda, Md., in 1952. Problems of hypertension will be given major emphasis by the section. Dr. Terry received his M.D. degree in 1935 from Tulane University in New Orleans. Subsequently he received training in internal medicine in Hillman Hospital, Birmingham, Ala., and University Hospitals and City Hospital, Cleveland. During 1939-1940 he was associated with Washington University School of Medicine, St. Louis, in a research and teaching position. Prior to joining the Public Health Service, in 1942, he was a member of the faculty of the University of Texas. He is a specialist certified by the American Board of Internal Medicine.

REPORT OF MENTAL HEALTH CLINIC

The Prince Georges County (Md.) Mental Health Clinic, which was established to develop methods by which a community can use existing facilities to improve mental health, completed its second year of operation on January 19, during which 468 persons were seen for consultation or treatment. Of this number, 281 were under 18 years of age. Of the 187 adults who came to the clinic, 123 were women. The largest number of patients, 36 per cent, came because of problems related to the family; some 18 per cent came because of problems concerning school or learning; 13 per cent had marital problems; 10 per cent had problems related to social adjustment, and 2 per cent had problems relating to job or vocational worries. Family physicians referred 23 per cent; 21 per cent were referred by schools; 16 per cent were referred by health and social agencies, and 10 per cent were sent by other referral sources.

In making use of existing organizations to promote mental health, the clinic has worked with the County Health Department, the schools and organizations of the parents in the area. The clinic staff has also worked with organizations which have wished to organize small groups of parents to discuss mental health problems. In addition, about 2,000 persons have attended some 30 talks during the year to Parent-Teacher Associations, women's clubs, church groups and others. The clinic is under the direction of Dr. Mabel Ross, psychiatrist, detailed to the post by the Public Health Service.

CANCER CONTROL RESEARCH GRANTS

Grants totaling $301,159 for twenty-two cancer control projects in twelve states, Hawaii and Puerto Rico have been announced by the Federal Security Administrator. Seven of the grants, totaling $57,353, are new awards; the other fifteen are renewals. Following are the new grants:

Los Angeles County Hospital, California: Dr. Edward M. Butt, $10,000 for slide-tumor library and registry.

Association of American Medical Colleges, Chicago: Dr. David S. Rube, $3,748 for an evaluative study of existing cancer teaching films.

Washington University Medical School, St. Louis: Drs. Robert Elman and Leo A. Sehar, $13,154 for study of nutritional rehabilitation and metabolism in patients with advanced cancer.

Washington University, St. Louis: Dr. Robert A. Moore, $3,385 for health and education, particularly cancer, in clinic.

American Cancer Society, New York: Dr. Brewster S. Miller, $2,233 for one half of total cost of issuing *Proceedings of the National Cancer Conference*.

Trustees of University of Pennsylvania: Dr. Cecilia Riegel, $9,833 for study of substances reacting with tryptophan and for attempts to identify them.

Meharry Medical College, Nashville, Tenn.: Dr. G. J. Tarleton Jr. $15,000 for radiotherapy equipment to complete armamentarium of existing combined unit for cancer control, teaching and research.

LONGEVITY OF WOMEN

The latest available figures show that the average length of life of white women in the United States has reached a new high of 71 years. The average for white men is 65.5 years. The figures cited were compiled by the Public Health Service and are based on 1948 death rates. The average longevity of nonwhite persons is lower—58.1 years for men and 62.5 years for women, according to the 1948 figures. The difference in average longevity between white and nonwhite persons, however, has decreased from about 15 years in 1900 to about 8 years in 1948. The difference in average length of life between men and women in the United States has steadily increased from less than 3 years in 1900 to 5½ years.

CONFERENCE ON PROGRESS IN VENEREAL DISEASE

A symposium on Current Progress in the Study of Venereal Disease will be held in Washington, D. C., April 27-28. The symposium is sponsored by the American Venereal Disease Association and the Experimental Therapeutics Study Section of the National Institutes of Health. Meetings will be held in the Thomas Jefferson Auditorium of the Department of Agriculture.

In addition to a presentation of papers, the afternoon session on April 28 will feature a panel discussion on the international aspects of venereal disease control. Information concerning the symposium may be obtained from Mr. Francis L. Schmehl, Executive Secretary, Experimental Therapeutics Study Section, National Institutes of Health, Bethesda 14, Md.

MISCELLANEOUS

EXAMINATION FOR MEDICAL OFFICERS

The U. S. Civil Service Commission is accepting applications for medical officer positions paying $5,400 and $6,400 a year and for medical officer (specialist) positions paying $7,600 to $10,000 a year. The positions are located in various federal agencies in Washington, D. C., in the Railroad Retirement Board in Chicago, in the U. S. Public Health Service, the Children's Bureau and the Indian Service, located throughout the United States and in Alaska, and in the Panama Canal Service in the Panama Canal Zone.

Applicants must be graduates of a medical school and, for most of the positions paying $5,400 a year, must have completed a full internship. For medical officer (specialist) positions, except in the field of general medicine and surgery, administrative medicine and adjudicative medicine, applicants must have had a full internship in the specialized field for which they apply or at least one year of postgraduate study or one year of full time training as a resident in the specialty. For all positions paying $6,400 and above, professional medical experience is required. No written tests are required.

The maximum age limits for these positions are as follows: For the Panama Canal Service, 45 years; for the Indian Service, 50 years for medical officer and 55 years for specialist positions, and for other agencies, 62 years. For persons entitled to veteran preference, the 45, 50 and 55 year age limits are extended to 62 years and the 62 year age limit is waived without limitation.

Information regarding these positions is given in announcement 217 and in Examining Circular 24, which may be consulted at most first and second class post offices, or copies may be secured from civil service regional offices or from the U. S. Civil Service Commission, Washington 25, D. C.

Medical News

(Physicians will confer a favor by sending for this department items of news of general interest: such as relate to society activities, new hospitals, education and public health. Programs should be received at least two weeks before the date of meeting.)

ARIZONA

Public Health Association Meeting.—The annual meeting of the Arizona Public Health Association will be held April 20-21 at Safford, with headquarters at the Buena Vista Hotel. A workshop on "Public Health and Arizona Economy" will be the main feature of the program. Section workshop meetings will be held for sanitarians, nurses, clerks, laboratory workers and special services. The special services section is open to all persons interested in public health but who are not working in one of the other fields mentioned. Dr. Harold M. Graning, Washington, D. C., chief, state and local health services branch of the U. S. Public Health Service, will conduct the round table following the section meetings.

CONNECTICUT

Summer School of Alcohol Studies.—The eighth annual session of the Yale Summer School of Alcohol Studies will be held at Yale University, New Haven, July 8 to August 4. A new emphasis will be placed on the particular problems of alcoholism in industry. The Yale program is now in operation in Wisconsin, with the cooperation of the Wisconsin Bureau of Alcoholic Studies. Before the summer session begins, two further studies will have been completed: (1) the occupational status and history of more than 2,000 patients of alcohol clinics and (2) the problems encountered by union stewards. Registration for the summer session will take place July 8-9. Elvin M. Jellinck, Sc.D., research associate in applied physiology at Yale, will direct the school. After two weeks of general background lectures, the student body will be divided into two groups: (1) persons interested in the legal, educational, religious and community problems involved in alcoholism and (2) physicians, social workers and others concerned with the care and treatment of alcoholics. The summer program includes 55 lectures, informal group meetings, visits to the laboratory, clinical and other facilities and individual consultations with staff members. In addition, the schedule will provide about 12 hours each for the student workshop dealing with special interests. All desiring to enrol are required to have a college education or equivalent experience. Part and whole scholarships are awarded annually by the summer school to qualified persons. Correspondence should be addressed to Summer School of Alcohol Studies, Laboratory of Applied Physiology, Yale University 52 Hillhouse Ave., New Haven.

DISTRICT OF COLUMBIA

Sight Saving and Braille Class.—A new course will be given at the Catholic University, Washington, D. C., June 26 to August 5, to train teachers of sight-saving classes and teachers of Braille classes. Lectures and clinics will be presented. Address inquiries to Roy J. Deferrari, Office of the Secretary General, Catholic University, Washington, D. C.

GEORGIA

Society News.—At the March meeting of the Atlanta Radiological Society, the following officers were elected: Drs. William W. Bryan and George R. Hrdlicka, both of Atlanta, president and vice president, respectively, and Dr. Ted F. Leigh, Emory University, secretary-treasurer.

Medical School Made Independent Unit.—Following recommendations made by George D. Strayer, Ph.D., of Columbia University, New York, and his associates who made a special survey of the University System of Georgia, the Board of Regents of the University System has declared the medical school a separate and independent unit within the system, restored the name to Medical College of Georgia and changed the title of the head of the school from dean to president.

Centennial State Medical Meeting in Macon.—The one hundredth annual session of the Medical Association of Georgia will be held April 18-21 at the City Auditorium in Macon, under the presidency of Dr. Enoch Callaway, LaGrange. The Abner Wellborn Calhoun Lecture will be given by Dr. Thomas M. Rivers of the Rockefeller Institute for Medical Research, New York, on "Reaction and Relation of Host Cells to Viruses." Other out of state speakers include Dr. Ernest E. Irons, Chicago, President, American Medical Association; Dr. Jacob E. Finesinger, Baltimore, who will speak on "Handling the Emotional Problems of the Cancer Patient," and Dr. Richard L. Meiling, Washington, D. C., "Medical Services in the Department of Defense." Headquarters for the Woman's Auxiliary will be the Hotel Dempsey. Both scientific and technical exhibits will be shown.

ILLINOIS

Facilities for Mental and Chronic Patients.—Applications for state and federal aid to local hospitals for construction of facilities for chronically and mentally ill patients will be reviewed by the state Advisory Council on Hospitals at a May 11 meeting in Springfield. A total of $1,500,000 in governmental funds is available to Illinois hospitals for these special projects during the fiscal year beginning July 1. Dr. Roland R. Cross, director of the State Department of Public Health, said that applications for state and federal assistance for the construction of facilities for the chronically or mentally ill must be submitted to him by April 20.

Graduate Conference in Peoria.—A postgraduate conference will be held at the Pere Marquette Hotel, Peoria, April 20, with the Peoria Medical Society acting as host. Chicago participants will be:

Eugene F. Traut, Arthritis: Current Treatment.
Edwin N. Irons, Treatment of Infectious Diseases: New Antibiotics.
Eugene A. Hamilton, Low Back Pain.
Linden Seed, Acute Conditions of the Abdomen: Early Diagnosis.
Louis R. Limarzi, Infectious Mononucleosis.

A round table will conclude the afternoon's session. In the evening Dr. William A. Brams, associate professor of medicine, Northwestern University Medical School, will speak on "Treatment of Heart Disease." The Fourth Councilor District covers the counties of Fulton, Hancock, Henderson, Henry, Knox, McDonough, Mercer, Peoria, Rock Island, Schuyler, Stark and Warren. The conference was arranged by the Postgraduate Education Committee of the Illinois State Medical Society.

Chicago

Infectious Hepatitis.—According to the Illinois Department of Public Health, reports reveal an increase of over 80 per cent in the incidence of infectious hepatitis in the period 1947 through 1949. The factors responsible for the increase in this area are not apparent, but current veterinary reports of canine leptospirosis suggest that some of the cases of infectious hepatitis reported may have been cases of hemorrhagic jaundice, or Weil's disease.

Dr. Sturgis to Give Edwin Kretchmer Lecture.—Dr. Cyrus C. Sturgis, professor of medicine, University of Michigan Medical School, Ann Arbor, and director, Thomas Henry Simpson Institute for Medical Research, will deliver the ninth Edwin R. Kretschmer Memorial Lecture of the Institute of Medicine of Chicago on the evening of April 28, at the Palmer House. His subject will be "An Evaluation of the Nature, Treatment and Prognosis of Leukemia."

Organize Society of Physical Medicine.—Early in March a few persons interested in physical medicine met to discuss the formation in the Chicago area of a society in the field of physical medicine. Dr. Charles O. Molander, assistant professor of physical medicine, Northwestern University Medical School, is acting as temporary chairman. A committee on constitution and another on program will report at the organizational dinner meeting April 19 at 6:30 p.m. in the headquarters of the Chicago Real Estate Board, 105 West Madison Street. All interested are invited to attend.

Dr. Maddock Named Elcock Professor.—Dr. Walter G. Maddock has been appointed Edward G. Elcock professor of surgery at Northwestern University Medical School. He joined the medical school faculty in 1946 after four years of service as a colonel in the army medical corps in the European theater, where he served as commanding officer of the 298th General Hospital. He is a specialist certified by the American Board of Surgery and is now president of the Central Surgical Association. The Elcock professorship was made possible by a gift in 1923 from Edward G. Elcock, Chicago industrialist, who died in 1934.

KENTUCKY

Pediatric Society Meeting.—The first annual meeting of the Kentucky Society for the Advancement of Pediatrics will be held in Louisville April 21. Speakers at the afternoon meeting at the Louisville General Hospital amphitheater will be Dr. John Caffey, New York, professor of pediatrics and roentgenology, Columbia University, New York, whose subject will be "Congenital Obstructions of the Alimentary Tract," and Dr. Alexander A. Weech, Cincinnati, head, department of pediatrics, University of Cincinnati, "A Pediatrician Looks at the Behavior Disorders of Children." Dr. Caffey will also

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address the dinner meeting at the Pendennis Club on "Bronchial Obstructions and Cystic Disease of the Lungs." Officers of the society are Drs. William W. Nicholson, Louisville, president; J. Ewing Dunn, Paducah, vice president, and Cathryn C. Handelman, secretary-treasurer.

LOUISIANA

Grant to Expand Ophthalmology Department.—The Tulane University of Louisiana School of Medicine, New Orleans, is establishing an expanded program of research and graduate teaching in diseases of the eye on the basis of a $50,000 grant from the Edward G. Schlieder Educational Foundation of New Orleans. A laboratory of pathology of the eye will be set up in the new wing of the Eye, Ear, Nose and Throat Hospital, and a laboratory of bacteriology of the eye will be established in the Hutchinson Memorial Hospital, both for diagnosis and research. The graduate courses in ophthalmology will be expanded to eleven months, and new subjects will be added. Annual short courses for practicing ophthalmologists also will be established, on the use of new types of diagnostic treatment, on cancerous tumors and other growths and on clinical ophthalmology. The last will be a symposium, accommodating about 100 specialists, with addresses and demonstrations by authorities in the field. Lectures will be given for general practitioners and specialists in other fields. The program will be under the direction of Dr. James H. Allen, formerly professor of ophthalmology, University of Iowa College of Medicine, Iowa City, who has been appointed professor of ophthalmology. The Schlieder Foundation last July gave $60,000 for the development and expansion of the school's psychiatric facilities. The funds were left by the late Edward G. Schlieder, New Orleans philanthropist, who died May 12, 1948.

MICHIGAN

Dr. Blain Honored.—On Dr. Alexander W. Blain's sixty-fifth birthday the bulletin of the hospital which bears his name was dedicated to its founder in Detroit, March 4. Fifteen scientific papers were contributed by students who had had a portion of their surgical training under his guidance. Other contributors were Dr. Frederick A. Coller, of the University of Michigan, Ann Arbor, president of the American College of Surgeons, and Dr. John R. Boland, associate physician at the Blain Clinic since 1911.

NEW YORK

Postgraduate Lectures.—The Medical Society of the State of New York, with the cooperation of the New York State Department of Health, has arranged for the following lectures: The Rensselaer County Medical Society meeting at 8 p. m. May 16 at the County Court House in Troy will hear Dr. Samuel Kleinberg speak on "Back Pain." The Utica Academy of Medicine will hear Dr. Henry T. Randall, New York, speak on "Shock" at a meeting May 18 at 8 p. m. in the Hotel Utica.

A change in date from April 12 to May 24 has been made for one of the series of lectures on industrial medicine arranged for the Sullivan County Medical Society. Dr. James H. Sterner of Eastman Kodak Company, Rochester, N. Y., will speak on "Systemic Effects of Various Substances Commonly Used in Industry," at 8:30 p. m. at the Lenape Hotel in Liberty.

New York City

Hospital Alumni Meeting.—The New York University-Post Graduate Medical School-Bellevue Hospital Ophthalmological Alumni Association will hold its meeting at New York University College of Medicine April 17-18.

Personal.—Dr. Elise Strang L'Esperance, assistant professor of preventive medicine at Cornell University Medical College, has been promoted to clinical professor of preventive medicine. She has been associated with Cornell since 1910 and is director of the Strang Cancer Prevention Clinics of Memorial Hospital.

Friesner Lecture.—Dr. Juda Groen, physician in chief of the Second Medical Service, Wilhelminia Gasthuis, Amsterdam, Netherlands, will deliver the Isidore Friesner Lecture of Mount Sinai Hospital on "Emotional Factors in the Etiology and Treatment of Internal Diseases," April 25 at 8:30 p. m. in the Blumenthal Auditorium.

Charter Day Services.—New York Medical College, Flower and Fifth Avenue Hospitals observed its ninetieth anniversary April 12 with special Charter Day services. Alumnus Dr. Marcus D. Kogel, City Commissioner of Hospitals, delivered the principal address "Changing Concepts in Medicine." Other speakers at the reception and banquet were Dr. J. A. Werner Hetrick, dean, and Charles D. Halsey, chairman of the board of trustees.

Wyckoff Lecture.—Dr. George W. Thorn, Hersey professor of the theory and practice of physic, Harvard Medical School, Boston, gave the annual John Wyckoff Lecture for 1950 at New York University College of Medicine: "Studies on the Use of ACTH and Cortisone" on March 28 and "Clinical Use of the Artificial Kidney" on March 29. The John Wyckoff Lectureship was established by the Phi Delta Epsilon Fraternity.

Strausberg Memorial Lecture.—The Fourth Annual Samuel Strausberg Memorial Lecture, sponsored by the Board of Directors and the Clinical Society of the Beth-El Hospital, will be given the evening of April 27 in the MacNaughton Auditorium of the Kings County Medical Society Building. The speaker is Dr. Theodore B. Bayles, assistant in medicine, Harvard Medical School, Boston, whose subject will be "Physiology and Clinical Uses of the Adrenocorticotropic Hormone."

Appointed to Speech Hospital.—Dr. Douglas B. Remsen, a graduate of Johns Hopkins University, Baltimore, 1929, has been appointed associate director of the National Hospital for Speech Disorders. For ten years Dr. Remsen has been associate professor of medicine at the Medical College of the State of South Carolina in Charleston. The National Hospital for Speech Disorders was founded in 1917 by Dr. James S. Greene. More than 4,000 patients from all parts of the country and from foreign countries are treated annually, 60 per cent of them in free clinics.

Bluestone Fellowship Fund.—Dr. Ephraim M. Bluestone, director of Montefiore Hospital for Chronic Diseases, was honored March 30 by the creation of a $5,000 fellowship fund in hospital administration in his name by Hadassah, the Women's Zionist Organization of America. The fund will be used to enable Israel students to study in this field in the United States. It is being set up in appreciation of the 20 years of service he has given to the Medical Reference Board of Hadassah and the Hebrew University, 11 of them as chairman. An additional $1,000 has been designated for a project to be agreed on by Dr. Bluestone and Hadassah "to help advance the frontiers of medical science." Dr. Blustone was director of the Hadassah Medical Organization in Palestine from 1926 to 1928.

Discussion on Tuberculosis in Children.—Tuberculosis in children—diagnosis and treatment—was the subject of a discussion for the forty-seventh clinical session on chronic pulmonary diseases sponsored by the Tuberculosis Sanatorium Conference of Metropolitan New York at Cornell University Medical College Amphitheatre, April 12. The panel of pediatricians included Bela Schick of Mount Sinai and Sea View hospitals, Edith M. Lincoln, chief of tuberculosis service, Children's Medical Service, Bellevue Hospital; Charles W. Lester, Bellevue Hospital; John Caffey, Columbia University College of Physicians and Surgeons, and Oscar Auerbach, Halloran Veterans Administration Hospital. Dr. H. McLeod Riggins, assistant clinical professor of medicine, Columbia University College of Physicians and Surgeons, served as moderator.

Dr. Erdmann Honored.—Dr. John F. Erdmann, surgeon, on his eighty-sixth birthday, March 27, was honored with the presentation by Mayor William O'Dwyer of the city's Certificate of Merit in recognition of his public service during more than a half-century of practice. The presentation at University Hospital was attended by several hundred guests, including Winthrop Rockefeller, chairman of the Board of Trustees of the New York University-Bellevue Medical Center, and Dr. Edward M. Bernecker, administrative head of the hospital. Dr. Erdmann has been in active practice since his graduation from Bellevue Hospital Medical College in 1887. He also had been a member of faculty of the old New York Postgraduate Medical School for many years, where, after serving as director and professor of the department of surgery, he continues to act as consultant in surgery.

OHIO

Joint Meeting.—On March 14 at the College of Medicine, University of Cincinnati, Lucile Petry, assistant surgeon general of the U. S. Public Health Service, spoke on "Nursing Research: How It Affects and Improves Patient Care." The meeting was jointly sponsored by the Cincinnati Academy of Medicine and its Women's Auxiliary and the Council on Community Nursing of the Public Health Federation.

New Obstetrics Professor at Western Reserve.—Dr. Gilbert J. Vosburgh, assistant professor of obstetrics, Johns Hopkins University School of Medicine, Baltimore, has been appointed professor of obstetrics and gynecology at the Western Reserve University School of Medicine, Cleveland, and director of the department of obstetrics and gynecology in the University Hospitals, effective in July. Dr. Vosburgh will be the first occupant of the Arthur H. Bill chair of obstetrics and gynecology recently established at the university. He is a graduate of Johns Hopkins University (1942).

OREGON

Society News.—The Portland Academy of Medicine heard Dr. William Boyd, professor of pathology and bacteriology, University of Toronto, Canada, in two lectures April 10 and 11, "The Spread of Tumors" and "The Pathology of Intercellular Substance," respectively.

Sommer Memorial Lectures.—These lectures will be given by the Multnomah County Medical Society in conjunction with the University of Oregon Medical Center Alumni Association meeting April 26-28 in the Library Auditorium of the University of Oregon Medical School, Portland. The guest lecturers will be Dr. Charles B. Puestow, clinical professor of surgery, University of Illinois College of Medicine, Chicago; Clarence C. Little, Sc.D., Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine, and Homer W. Smith, Sc.D., of the physiology laboratory, New York University College of Medicine, New York.

PENNSYLVANIA

Postgraduate Spring Sessions.—The Spring Sessions of the third annual Graduate Education Institute sponsored by the Medical Society of the State of Pennsylvania opens the last week in April in 11 teaching centers throughout the state, with a faculty of 175 instructors from leading medical schools and hospitals lecturing to general practitioners on the latest in medicine and surgery. Planned for the doctor who is unable to attend postgraduate lectures in metropolitan centers, the Graduate Education Institute brings the school to the doctor in the field. Teaching centers have been established in Allentown, Clearfield, Erie, Harrisburg, Johnstown, Lancaster, Oil City, Reading, Scranton, Washington and Williamsport. The schedule of lectures is so arranged that, if a doctor is unable to attend a particular session in a center nearest home, he may attend an identical session in a neighboring center on another date. Subjects under discussion will include the early detection of cancer, preventive medicine and public health, eye, ear, nose and throat disorders, physical medicine, surgical diagnosis, care of the patient after operation, care of the chronic invalid and care and treatment of patients in the event of atomic disaster. Instructors have been selected from the medical schools in Philadelphia and Pittsburgh and from hospitals throughout the state. Participants will be presented with certificates of recognition at the annual meeting of the State Society in Philadelphia next October.

Philadelphia

Shmookler Memorial Lecture.—The Henry B. Shmookler Memorial Lecture will be delivered by Dr. Maxwell M. Wintrobe, professor and head of the department of medicine, University of Utah, Salt Lake City, on "Management of Hodgkin's Disease, the Leukemias and Related Disorders." The lecture will be presented at the Mount Sinai Hospital Nurses Home and Auditorium, Fifth and Reed Streets, May 3 at 9 p. m.

Cancer Lectures.—A series of open meetings will be held in University Hospital's medical amphitheater, under the auspices of the University of Pennsylvania School of Medicine and the Cancer Division of the Department of Health, Commonwealth of Pennsylvania. The lectures are as follows:

April 17, Joe V. Meigs, Boston, Cancer of the Female Pelvis.
April 20, Sidney Farber, Boston, Chemotherapy of Disseminated Cancer: Experimental and Practical Considerations.
April 25, Fred W. Stewart, New York, Cancer of the Breast.
April 27, Howard B. Andervont, Sc.D., Bethesda, Md., The Milk Factor.

Course on Atomic Medicine.—The first organized course in the medical aspects of atomic energy was opened February 8 at Jefferson Medical College when Col. James P. Cooney (MC, USA) spoke on "The Problem of the Physician in an Atomic Disaster." The course, to be repeated annually, will consist of 18 hours of instruction to junior students, with 14 hours given by the departments of radiology, medicine and surgery. The other four hours will be given by army medical officers.

In the opening lecture Colonel Cooney placed the students in the position of a group charged with planning the medical defense against a Hiroshima-type explosion. He said the casualties would be of three kinds, resulting from blast, burns and radiation. The direct blast effect of the Hiroshima bomb was "rather insignificant," Colonel Cooney reported. The indirect effect, however, "was tremendous" and was manifested by flying debris, masonry, timbers and glass fragments. Burn casualties, he said, will be divided between those caused by the flash and those resulting from flames. Beyond 1,000 yards, clothing "offered considerable protection against flash burns." Color and tightness of the clothes were factors; loose, light clothing provided more protection than tight, dark raiment. Persons exposed to the flash will be temporarily blinded. Concerning the third hazard, ionizing radiation, he said, "Let us not underestimate the radiation hazard. The deaths from ionizing radiation at Hiroshima amounted to 9,000. However, the emphasis placed on it has confused and frightened people to the extent that many believe it will be dangerous to enter a bombed community and rescue the wounded. This is unfortunate and erroneous," Colonel Cooney insisted. "We cannot emphasize too strongly that the initial problem is the evacuation and treatment of the blast and burn casualties. After the detonation of an atomic bomb, such as at Hiroshima and Nagasaki, it is perfectly safe to enter the area and rescue the wounded without fear of exposure to residual radiation."

Pittsburgh

Silver Anniversary of Pharmacy School.—The Duquesne University School of Pharmacy will celebrate the twenty-fifth anniversary of its founding April 19-20. The scientific program beginning Wednesday afternoon will present the following speakers:

Lloyd C. Miller, Ph.D., Rensselaer, N. Y., Antibiotics: Their Bright and Seamy Sides.
Donald C. Grove, Ph.D., Takoma Park, Md., Regulatory Control of Antibiotics.
Harry M. Crooks Jr., Ph.D., Detroit, Chloromycetin® (Chloramphenicol).
Elliot R. Weyer, Ph.D., Brooklyn, Future Antibiotics.
Alfred Halpern, Ph.D., Pittsburgh, New Ophthalmic Ointments.

TEXAS

State Medical Meeting at Fort Worth.—The annual session of the State Medical Association of Texas will be held in Fort Worth with headquarters at the Texas Hotel April 30 to May 4, under the presidency of Dr. George V. Brindley, Temple. Guest speakers at the general sessions include:

Mr. Cecil Palmer, London, England, Socialized Medicine in Practice.
Robert J. Crossen, St. Louis, Malignancies of the Uterus.
Oyvar Swensen, Boston, Time and Choice of Operative Procedures in Infancy and Childhood.
John W. Cline, San Francisco, Current Status of the Campaign to Socialize American Medicine.

Symposium: Some Aspects of Thyroid Disease

Paul A. Chandler, Boston, Diagnostic Eye Signs.
Thomas J. Dry, Rochester, Minn., Cardiovascular Evidence.
Dr. Swenson, Hyperthyroidism in Children from a Surgical Standpoint.
Frank W. Konzelmann, Atlantic City, N. J., Differential Diagnosis of Thyroiditis.
Howard B. Hunt, Omaha, Radioiodine in Evaluation and Treatment of Thyroid Disease.
Dr. Crossen, Thyroid Dysfunction and Sterility.
Ernest L. Stebbins, Baltimore, Prevention of Endemic Thyroid Disease.

Symposium: Jaundice

Howard K. Gray, Rochester, Minn., Jaundice in General Surgery.
Carl T. Javert, New York, Jaundice and Pregnancy.
Dr. Dry, Tests of Hepatic Function.
Dr. Konzelmann, Pathologic Aspects of Jaundice.
Dr. Stebbins, Distant Appraisal of Yellow Fever Vaccine Hepatitis.

Section programs have been planned and numerous state associations will meet in conjunction with the association. The President's Reception and Ball will be at the Blackstone Hotel Tuesday at 9:15. Clinical and general meeting luncheons and alumni and fraternity banquets have been scheduled. A color television exhibit originating in St. Joseph's Hospital will be presented through Smith, Kline and French Laboratories of Philadelphia Monday, Tuesday and Wednesday afternoons. Technical exhibits will be shown. The Woman's Auxiliary Headquarters will be the Blackstone Hotel.

UTAH

Joint Meeting of Surgical Society and State Medical Association.—The Ogden Surgical Society, in cooperation with the Utah State Medical Association, will hold its annual meeting April 24-26 at the Orpheum Theatre in Ogden. The following physicians are on the program: Drs. LeRoy Abbott, San Francisco; Dermid L. C. Bingham, Kingston, Ontario, Canada; Alfred Blalock, Baltimore; Guy L. Boyden, Portland, Ore.; George E. Burch, New Orleans; John Caffey, New York; Michael E. DeBakey, Houston, Texas; Claude E. Dixon, Rochester, Minn.; Frank H. Lahey, Boston; George H. Gardner, Chicago; T. Leon Howard and Henry Swan, Denver; Charles S. Cameron, New York, and Maxwell M. Wintrobey, Salt Lake City. Dr. Charles S. Cameron, New York, will give a public address at Ogden High School April 24 at 8:30 p. m. This scientific meeting will replace the annual 1950 meeting of the Utah State Medical Association.

WASHINGTON

Spokane Surgical Society.—Dr. Robert M. Zollinger, chairman, department of surgery, Ohio State University College of Medicine, Columbus, was guest speaker at the annual meeting of the Spokane Surgical Society at the Davenport Hotel April 8. He spoke at the luncheon on "Clinical and Experimental Observations on the Diagnosis of Pancreatic Lesions" and at the banquet on "Experiences with One Hundred Consecutive Splenectomies."

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GENERAL

Pacific Northwest Medical Society.—The annual meeting of the Pacific Northwest Radiological Society will be held at the Spokane Hotel, Spokane, Wash., May 6-7. Drs. Merrill C. Sosman, Boston, and Juan A. del Regato, Columbia, Mo., are to be the guest speakers. Dr. Sosman is to speak on "Diagnosis of Skull and Intracranial Disorders" and "Diagnosis of Heart Disease." Dr. de Regato's subjects are "Cancer of the Lower Lip" and "Treatment of Carcinoma of the Cervix." Additional talks will be given by the members of the society. A film discussion is scheduled for Sunday morning. Nonmembers interested in the meeting are invited to attend.

Public Health Meeting.—The public health associations of Missouri and Kansas will meet jointly April 24-26 in Kansas City, Mo., at the Municipal Auditorium. Speakers at the general sessions include: Mr. H. Roe Bartel, Kansas City, Mo.; Dr. Franklin D. Murphy, Kansas City, Kan.; Dr. Floyd C. Beelman, Topeka, Kan., secretary of the Kansas State Board of Health; Dr. Buford G. Hamilton, Missouri State Health Officer, Miss Marion Sheahan, New York, and Mr. Walter Snyder, of the National Sanitation Foundation, Ann Arbor, Mich. The remaining time will be devoted to section meetings and individual state business meetings.

National Hearing Week.—The American Hearing Society is sponsoring annual National Hearing Week May 7-13, when it will present to the American public facts regarding the national hearing problem. According to the society, the primary need is inform the public that while one person in 10 has impaired hearing, there is much that can be done to prevent a hearing loss from becoming a hearing handicap. Part of the problem is testing the hearing of 24 million school children and providing for those who require medical treatment, instruction in lip reading, speech correction and hearing aids. The American Hearing Society and its 119 chapters provide eight types of service designed to assist the hard of hearing.

Doctor-War Prisoner Status.—To prevent certain hardships suffered in previous wars by physicians of the Armed Services who fell into enemy hands, the World Medical Association is planning to have all nations fix a status for captured doctors which, while entitling them to the formal rights of a prisoner of war, will not actually designate them as such. At the annual meeting of the organization's Council in Copenhagen, Denmark, April 24-28 this issue will be discussed. Those going to Copenhagen as representatives of the U. S. Committee of the association are Dr. Elmer L. Henderson, Louisville, Ky., president-elect of the association, and Dr. Roscoe L. Sensenich of South Bend, Ind., Past President of the American Medical Association. Others attending the meeting will be Dr. Morris Fishbein, Chicago, editor of the World Medical Association's bulletin, and Dr. Louis H. Bauer, New York, secretary-general.

Joint Meeting of Pathologists.—The Middle-Eastern Region of the College of American Pathologists, the Baltimore Pathological Society, the Washington Society of Pathologists and the Section on Pathology and Laboratory Medicine of the Medical Society of the District of Columbia will hold a joint meeting May 9-10, at the medical society building in Washington, D. C. A seminar on Problems in Lymph Node Diagnosis will comprise the Tuesday afternoon session. Dr. R. Philip Custer, Philadelphia, will preside. Wednesday morning will be devoted to a symposium on carcinoma in situ of the cervix, with Drs. O. Benwood Hunter, Hugh G. Grady, Col. James E. Ash, retired, and Mr. Theodore O. Winship, all of Washington, D. C.; Drs. Edwin D. Murphy, Memphis, Tenn., and Richard W. TeLinde, Baltimore. The guest speaker at the evening scientific session will be Dr. Andrew C. Ivy, Chicago, whose subject will be "Differential Therapeutic Diagnosis of Jaundice."

Aptitude Testing Program.—Students desiring to enter dental schools in the class enrolling in the fall of 1951 will be asked to take aptitude tests administered by the Council on Dental Education of the American Dental Association. After a student's credentials have been accepted by the dental school the student may take a test at centers established at about 39 colleges and universities, including Alaska, Puerto Rico and the Hawaiian Islands. Four testing periods are planned: during Thanksgiving vacation 1950, during Christmas holidays and two other sessions in February and April 1951. No applicant may take the test twice. Inquiries about requirements of individual schools and the administration of the Testing Program should be addressed to the individual dental school. The addresses of the accredited dental schools may be obtained from the Council on Dental Education, 222 East Superior Street, Chicago 11.

Heart Association Grants $220,000 for Research.—Grants-in-aid totaling $220,000 have been awarded for heart disease research to 46 universities, hospitals, institutes and laboratories by the American Heart Association, bringing to approximately $400,000 the total funds voted by the American Heart Association during the past year for research to be conducted in the academic year 1950-1951. This total does not include research funds independently allocated by affiliated local heart associations as part of their regional programs. All research allocations are made on recommendation of the Research Committee of the association's scientific council, of which Dr. Tinsley R. Harrison of Dallas, Texas, is chairman. Among the largest grants was one for $10,500 to Children's Hospital, Boston, for the study of the pathology of peripheral blood vessel disease, by Dr. Herrman L. Blumgart and $10,395 to Western Reserve University School of Medicine, Cleveland, for a three year study of metabolism of the heart muscle, by Dr. Victor Lorber.

American Psychiatric Association.—This association will hold its annual meeting May 1-5 at the Statler Hotel, Detroit, under the presidency of Dr. George S. Stevenson, New York. There will be a joint session of the Section on Psychoanalysis and the American Psychoanalytic Association Monday afternoon. The subjects of sections meetings include legal aspects of psychiatry, shock therapy, research, psychotherapy, industrial problems, psychopathology, psychosurgery, psychology, teaching concepts, private practice, veterans' problems, child psychiatry, theory, relation of psychiatry to public health, treatment, hospitals, convulsive disorders, psychiatric social service, administrative problems and social sciences and international understanding. Thursday morning there will be a symposium on hospital administration and a motion picture symposium. Thursday at 8 p. m. in the Book-Cadillac Hotel a special academic lecture on psychosurgery will be presented by Dr. Walter J. Freeman, Washington, D. C. The annual dinner and dance will be held at the Book-Cadillac.

WHO Fellowships Aid 207 Health Specialists.—The World Health Organization in 1949 awarded fellowships to 207 doctors, nurses and other health personnel of 35 countries in Europe, the Western Pacific, Southeast Asia, the Eastern Mediterranean and the Americas. The number of countries to which fellows were assigned was increased in 1949; whereas 40 per cent of the recipients studied in the United States before 1949, about 26 per cent were placed in the United States last year. Fields in which the fellows studied included public health administration, sanitation, communicable diseases, public health nursing, maternal and child health, internal medicine, surgery and basic medical sciences. In addition, WHO in 1949 administered 27 fellowships awarded by the United Nations International Children's Emergency Fund to health personnel of Southeast Asia. They included 14 from India, 2 from Indonesia, 5 from Thailand and 6 from the Philippines. The 27 UNICEF fellowships administered by WHO are among a total of 76 fellowships authorized by the Children's Fund.

CORRECTION

Vulvovaginitis.—In the answer to the query entitled "Vulvovaginitis" in THE JOURNAL, February 25, page 610, the metric equivalents of the dosage of sulfadiazine given should have been 60 to 100 mg. per kilogram, instead of 15 to 25 mg. per kilogram.

Periodically Painful Breasts.—Under this title in Queries and Minor Notes in THE JOURNAL April 1, 1950, page 1037, in the sentence "The patient should take 15 mg. of ammonium chloride three times a day. . . ." the dosage "15 mg." should have read 15 grains.

Marriages

ASHER G. RUCH, South Mountain, Pa., to Mrs. Ethel M. Kendig Zimmerman in Baltimore recently.

PHILIP A. RILEY JR., Jackson, Mich., to Miss Joane Boling at Sioux Falls, S. D., February 18.

FRANCES MARSHALL LOVE, Richland, Wash., to Mr. Louis F. Huck, of Pasco, Wash., in January.

ENOS D. MILLER, Wellman, Iowa, to Mrs. Cecil Graham of Grand Junction, Colo., in January.

GEORGE H. SCIARONI, Fresno, Calif., to Mrs. Siletha Tibbens in San Francisco, recently.

SANFORD FIFE BLACKBURN to Miss Marian Smith, both of Ogden, Utah, recently.

Deaths

John Claxton Gittings, Wynnewood, Pa.; born in Williamsport, Pa. May 23, 1874; University of Pennsylvania Department of Medicine, Philadelphia, 1895; emeritus professor of pediatrics at his alma mater, where in 1933 he was appointed William H. Bennett professor of pediatrics, and the Medico-Chirurgical College, Graduate School of Medicine, University of Pennsylvania; served as lecturer in pediatrics at the Johns Hopkins University School of Medicine, Baltimore; emeritus member and past president of the American Pediatric Society; past president of the Philadelphia Pediatric Society; served during World War I; formerly medical director and president of the staff of Children's Hospital and chief of the pediatric service, Hospital of the University of Pennsylvania in Philadelphia; formerly on the editorial board of the *American Journal of Diseases of Children;* co-author of "Artificial Feeding of Infants" and "Tuberculosis in Infancy and Childhood"; died March 8, aged 75.

Edwin Gail Hamilton, Warren, Pa.; born in North Clarendon, Pa., Dec. 25, 1893; University of Pennsylvania School of Medicine, Philadelphia, 1919; member of the American Medical Association; fellow of the American College of Surgeons; served during World War I; returned to duty as a naval officer during World War II with the rank of lieutenant commander and later was advanced to the rank of full commander; in addition to the Presidential Unit Citation, held service ribbons for the American, European, African, and Asiatic-Pacific theaters, with numerous service stars, and the World War II Victory ribbon and medal; died January 24, aged 56.

Robert Hastings Rogers, Newark, N. J.; Columbia University College of Physicians and Surgeons, New York, 1894; member of the American Medical Association; served as treasurer of the Essex County Medical Society for twenty-eight years and relinquished that post in 1940; affiliated with the Essex County Isolation Hospital in Belleville, and Presbyterian Hospital; for many years on the staff of the Newark Eye and Ear Infirmary; died in Philadelphia February 9, aged 83, of cerebral thrombosis.

Charles Leonard Antony, Riverdale, N. Y.; Columbia University College of Physicians and Surgeons, New York, 1899; affiliated with St. Francis, Misericordia, Harlem and City hospitals in New York; died in Woodhaven, N. Y., December 10, aged 73, of cerebral hemorrhage.

Ira E. Atkinson, Lincoln, Neb.; Omaha Medical College, 1887; served with the R.O.T.C. hospital in Lincoln during World War I; died February 11, aged 83, of heart disease.

Clark Dyer Baker, Los Angeles; Rush Medical College, Chicago, 1903; member of the American Medical Association; served during World War I; affiliated with the Hollywood-Leland Hospital; died February 23, aged 78, of coronary occlusion.

Abner Henry Bauscher ● Reading, Pa.; Jefferson Medical College of Philadelphia, 1908; past president of the Northeastern Pennsylvania Chapter of the National Society for the Advancement of Gastro-Enterology and Berks County Medical Society; member of the National Gastroenterological Association; served overseas during World War I; for many years affiliated with St. Joseph's Hospital, where he was past president of the staff and formerly head of the department of gastroenterology; died February 24, aged 67, of hypertensive heart disease.

George Nevin Beecher ● Chicago; Chicago College of Medicine and Surgery, 1910; member of the American Association of Industrial Physicians and Surgeons; died in Columbus Hospital March 1, aged 61, of fibropurulent peritonitis and perforated peptic ulcer.

Robert Alford Berry, Birmingham, Ala.; Medical College of the State of South Carolina, Charleston, 1927; member of the American Medical Association; at one time health officer in Sumter County in S. C.; died in the Jefferson-Hillman Hospital February 10, aged 48, of subdural hemorrhage.

Carlotta Swett Bunting, Hamden, Conn.; Johns Hopkins University School of Medicine, Baltimore, 1901; died December 22, aged 76, of cerebral hemorrhage.

Arthur Howard Butler ● El Paso, Texas; Medical Department of Tulane University of Louisiana, New Orleans, 1895; served during World War I; superintendent of the El Paso City-County Hospital from 1928 to 1944; died February 2, aged 74, of mesenteric thrombosis.

V. Bascom Cozby, Grand Saline, Texas; Southwestern University Medical College, Dallas, 1908; member of the American Medical Association; past president of the Van Zandt County Medical Society; veteran of the Spanish-American War and World War I; retired from National Guard with the rank of major; served as city health officer, for many years mayor of Grand Saline and member of the school board; Cozby-Germany Hospital named in his honor; first president of the Lions Club; died recently, aged 74, of carcinoma of the prostate.

Pellegrino Antonio D'Acierno ● Union City, N. J.; Regia Universita di Napoli Facolta di Medicina e Chirurgia, Italy, 1906; specialist certified by the American Board of Obstetrics and Gynecology; fellow of the American College of Surgeons; served on the staffs of the North Hudson Hospital in Weehawken and the Margaret Hague Maternity Hospital in Jersey City; died March 2, aged 68, of coronary occlusion.

Ralph Waldo Dawson, Detroit; Starling Medical College, Columbus, 1905; member of the American Medical Association; died February 28, aged 71, of adenocarcinoma of the gallbladder.

Gerald H. Dennis, Dayton, Ohio; Hahnemann Medical College and Hospital of Philadelphia, 1928; member of the American Medical Association; served during World War II and received the Bronze Star Award; died in the Veterans Administration Center February 25, aged 46, of squamous cell bronchogenic carcinoma of the right lung.

John S. Dohany, Detroit; Detroit College of Medicine, 1894; served on the staffs of St. Mary's, Harper and Providence hospitals; died February 25, aged 81, of bronchopneumonia and fractured right hip.

Chester Madison Echols ● Milwaukee; Rush Medical College, Chicago, 1901; past president of the Medical Society of Milwaukee County; died in St. Joseph's Hospital February 20, aged 75, of coronary disease.

John W. Evers, Flint, Mich.; Rush Medical College, Chicago, 1902; member of the American Medical Association; served overseas during World War I; died in the Veterans Administration Hospital, Dearborn, February 11, aged 72, of cerebral thrombosis.

William Kerr Foster, Minneapolis; University of Minnesota Medical School, Minneapolis, 1921; member of the American Medical Association; served as medical examiner for Minneapolis high school athletics; affiliated with Asbury Hospital and the St. Barnabas Hospital, where he died February 25, aged 71, of coronary thrombosis.

Thomas Cooper Fulton, St. Paul; University of Minnesota College of Medicine and Surgery, Minneapolis, 1902; also received a degree in law; died February 25, aged 80, of coronary sclerosis and hypertensive heart disease.

Boris Efim Greenberg ● Boston; Tufts College Medical School, Boston, 1918; member of the American Urological Association; fellow of the American College of Surgeons; affiliated with the Evangeline Booth Maternity Hospital and Home in Brookline, Beth Israel and Boston State hospitals; died February 7, aged 63, of myocardial infarction.

Joseph Wayne Greene, Independence, Mo.; University Medical College of Kansas City, 1904; member of the American Medical Association; affiliated with the Independence Sanitarium and Hospital; died March 6, aged 72, of coronary occlusion.

Guy Winfred Greer, Whitesboro, Texas; Memphis (Tenn.) Medical College, 1911; member of the American Medical Association; died in St. Vincent's Hospital, Sherman, February 11, aged 68, of heart disease.

Robert Henry Gulledge, Shreveport, La.; Medical Department of Tulane University of Louisiana, New Orleans, 1899; died in the Physicians and Surgeons Hospital February 7, aged 80, of pneumonia and cerebral arteriosclerosis.

E. Vincent Hale, Anna, Ill.; Beaumont Hospital Medical College, St. Louis, 1897; member of the American Medical Association; died February 17, aged 80, of coronary thrombosis.

William Anderson Hambrick, Kansas City, Mo.; Meharry Medical College, Nashville, Tenn., 1916; died in the Wheatley-Provident Hospital December 3, aged 63, of cerebral hemorrhage.

John Stanley Harlow, Boston; Harvard Medical School, Boston, 1923; member of the American Medical Association; served in the French Ambulance Corps during World War I; died in Massachusetts General Hospital February 6, aged 53, of myocardial infarction and coronary thrombosis.

Ralph Lee Harris ● Chicago; Rush Medical College, Chicago, 1923; formerly assistant clinical professor of medicine at his alma mater; served during World War I; died in the Presbyterian Hospital March 13, aged 52, of coronary thrombosis, myocardial infarction and rupture of the left ventricle.

● Indicates Fellow of the American Medical Association.

Charles Lester Harshbarger ● Norton, Va.; Medical College of Virginia, Richmond, 1929; member of the American Association of Industrial Physicians and Surgeons; member of the school board; owner and chief surgeon of Norton General Hospital; died suddenly February 21, aged 54, of coronary thrombosis.

Lee Otis Hill ● Camden on Gauley, W. Va.; College of Physicians and Surgeons, Baltimore, 1905; died February 27, aged 69, of acute myocardial insufficiency.

William Tell Hirschi, Clayton, Mo.; Marion-Sims College of Medicine, St. Louis, 1899; member of the American Medical Association; died in St. Vincent's Sanitarium, St. Louis, February 13, aged 77, of lobar pneumonia.

Harold Otis Hunt ● North Falmouth, Mass.; Boston University School of Medicine, 1909; died February 20, aged 68, of pulmonary carcinoma.

Robert Harold Jones, Fairmont, W. Va.; Medical College of Virginia, Richmond, 1933; member of the American Medical Association; fellow of the American College of Physicians; served overseas during World War II; affiliated with Laird Memorial Hospital in Montgomery from 1934 to 1941; affiliated with Fairmont General Hospital; died in Pittsburgh March 2, aged 46, of toxic encephalopathy.

Abraham I. Kaufman, Boston; Washington University School of Medicine, St. Louis, 1929; died December 10, aged 60, of Hodgkin's disease.

Clarence Moore Kelley, Melrose, Mass.; Harvard Medical School, Boston, 1910; member of the American Medical Association and the American Psychiatric Association; died recently, aged 65, of coronary occlusion.

Walter Edwin Koppenbrink ● Higginsville, Mo.; Washington University School of Medicine, St. Louis, 1913; past president, secretary and treasurer of the Lafayette County Medical Society; county physician; served as county coroner and chairman of the city board of health; an officer during World War I; died March 1, aged 59, of coronary thrombosis.

Charles Alfonzo Leavy, Clayton, Mo.; St. Louis University School of Medicine, 1903; member of the American Medical Association and the American Academy of Ophthalmology and Otolaryngology; died in the Missouri Baptist Hospital, St. Louis, February 11, aged 77, of bilateral pyelitis and diabetes mellitus.

Samuel Frank LeFevre ● Portland, Ore.; University of Oklahoma School of Medicine, Norman, 1911; served during World War I; on the staff of Emanuel Hospital; died in St. Vincent's Hospital February 14, aged 63, of hypertensive cardiovascular disease.

Samuel Lichner, Ocean City, N. J.; Bennett Medical College, Chicago, 1914; died in St. Anthony's Hospital, St. Petersburg, Fla., February 4, aged 75, of bronchopneumonia.

John Tullis Looney, Tishomingo, Okla.; Rush Medical College, Chicago, 1884; served as county health officer; for many years college physician for the Murray State School of Agriculture; died in Oklahoma City February 11, aged 87, of congestive heart failure.

Lothar Luft, New York; Universität Heidelberg Medizinische Fakultät, Baden, Germany, 1918; member of the American Medical Association; on the staff of Mount Sinai Hospital; died December 28, aged 58, of coronary thrombosis.

Paul Frederick Morf ● Chicago; Northwestern University Medical School, Chicago, 1897; fellow of the American College of Surgeons; served on the staffs of the Cook County, Illinois Masonic, Evangelical Deaconess and Henrotin hospitals; died in McMinnville, Ore., March 4, aged 78, of postoperative pneumonia.

Frank Joseph Norton ● Chicago; Chicago Medical School, 1918; served during World War I; died in the Alexian Brothers Hospital March 5, aged 64, of myocardial infarction and coronary disease.

Alan Edward O'Donnell, Providence, R. I.; Jefferson Medical College of Philadelphia, 1930; member of the American Medical Association; affiliated with the Charles V. Chapin and Rhode Island hospitals; died in the Jane Brown Memorial Hospital March 3, aged 45, of carcinoma of the tongue with metastases.

Adrian August Plaut, Chicago; Loyola University School of Medicine, Chicago, 1925; member of the American Medical Association; served during World Wars I and II; died in Jackson Park Hospital March 4, aged 51, of acute coronary occlusion.

Thomas Riffel Purcell, Clearwater, Fla.; University of Arkansas School of Medicine, Little Rock, 1938; member of the American Medical Association; served during World War II; died in Pahokee, January 14, aged 44, of multiple injuries received in an airplane crash.

Robert James Remmer, Utica, N. Y.; Syracuse University College of Medicine, 1946; interned at the Rochester (N. Y.) General Hospital; served during World War II; died in Memorial Hospital in February, aged 27, of leukemia.

Albert Jay Roberts ● Ottawa, Ill.; Northwestern University Medical School, Chicago, 1897; an Associate Fellow of the American Medical Association; member of the American College of Chest Physicians; served during World War I; county coroner; affiliated with Ryburn Memorial Hospital; in 1938 resigned as medical director of the La Salle County Tuberculosis Sanatorium, a position he had held since the institution was founded in 1919; died February 25, aged 76, of coronary occlusion.

Frank Horatio Russell, Kohler, Wis.; Northwestern University Medical School, Chicago, 1902; formerly health commissioner of West Allis; served during World War I; died in Tomah December 31, aged 76, of cerebral arteriosclerosis.

Jane Downes Kelly Sabine ● Boston; Northwestern University Woman's Medical School, Chicago, 1894; fellow of the American College of Surgeons; affiliated with New England Hospital for Women and Children for many years; received the honorary degree of Sc.D. from Smith College, Northampton, Mass., in 1938 on the occasion of the fiftieth anniversary of her class; died February 28, aged 86, of metastatic carcinoma.

Edward Henry Schaefer, Sedalia, Mo.; University Medical College of Kansas City, 1892; member of the American Medical Association; served on the staff of the John H. Bothwell Memorial Hospital; died February 5, aged 82, of myocarditis.

Carlos Adam Shaw, Waitsfield, Vt.; University of Vermont College of Medicine, Burlington, 1899; died February 16, aged 79, of bronchopneumonia.

Clark Monroe Smith ● Plumville, Pa.; Ohio Medical University, Columbus, 1903; served on the staffs of the Adrian Hospital in Punxsutawney and the Indiana (Pa.) Hospital, where he died February 5, aged 71, of coronary occlusion.

Leon Sochat, Chicago; College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, 1911; died February 27, aged 64, of acute coronary thrombosis.

Laban Phelps Stanley ● South Charleston, W. Va.; University of Louisville (Ky.) School of Medicine, 1928; member of the American Association of Industrial Physicians and Surgeons; plant physician for Carbide and Carbon Chemicals Corporation; died in Huntington March 2, aged 47, of heart disease.

Oliver P. Stoey, Newville, Pa.; Jefferson Medical College of Philadelphia, 1881; member of the American Medical Association; died February 6, aged 93, of bronchopneumonia.

Raymond Ward Stoner, Checotah, Okla.; University of Oklahoma School of Medicine, Oklahoma City, 1930; member of the American Medical Association; served during World War II; past president of the McIntosh County Medical Society; died December 30, aged 50, of cerebral hemorrhage.

Harry Streett, Leroy, Ohio; Baltimore Medical College, 1894; member of the American Medical Association; veteran of the Spanish-American War; member of the board and president of the Lodi (Ohio) Hospital, where he died February 14, aged 78, of coronary thrombosis with myocardial infarction.

Robert Cowan Thomas, Greenfield, Mo.; Tennessee Medical College, Knoxville, 1894; died in Springfield February 7, aged 80.

Alfred Percival Thompson, Quincy, Mass.; Boston University School of Medicine, 1897; member of the American Medical Association; for many years on the staff of Quincy City Hospital; died February 26, aged 78, of arteriosclerotic heart disease.

Herbert Franklin Thurston ● Indianapolis; Rush Medical College, Chicago, 1924; associate in gynecology, Indiana University School of Medicine; fellow of the American College of Surgeons; member of the board of directors of the Franklin (Ind.) College, which in 1945 awarded him an honorary Doctor of Science degree; affiliated with St. Vincent's Hospital, General Hospital and Methodist Hospital, where he died February 8, aged 57.

Arthur Dice Traul, Akron, Ohio; Starling Medical College, Columbus, 1903; member of the American Medical Association; served on the staff of the People's Hospital; died in City Hospital February 25, aged 71, of carcinoma of the esophagus.

Foreign Letters

PARIS

(From a Regular Correspondent)

Feb. 15, 1950.

Association of Streptomycin with the Methylic Tuberculous Antigen

L. Nègre (Pasteur Institute) prepared rabbits for three weeks with increasing (2, 3, 4 cc.) biweekly intravenous injections of methylic tuberculous antigen corresponding to 1 cg. of dry bacilli per cubic centimeter and infected them afterward by the same route with virulent tubercule bacilli. One month after inoculation, these animals were treated with a therapeutically weak dose of streptomycin (10 mg. per 2 Kg. of body weight); 10 weeks later, the author noted that resistance had greatly increased in them and that streptomycin had completed the preventive action of the antigen. In another experiment, the author infected guinea pigs with a strain of human tubercule bacilli and rabbits with bovine bacilli; eight days later, the former were given subcutaneous daily injections of 2 mg. of streptomycin in two doses and biweekly injections of 0.25 cc. of pure antigen; rabbits were treated with daily injections of 10 mg. of the antibiotic and biweekly injections of 0.5 cc. of methylic antigen. In each species three groups were formed: one to which the same dose of streptomycin only was given, one which received the antigen only and one group of controls. They were killed two months after the inoculation. The tubercles seen in the streptomycin-treated guinea pigs were fewer (one third) than in those treated with the antibiotic and antigen. In the rabbits there were 57 lesions in those treated with the antigen only, 43 in those treated with streptomycin only and only 15 in those treated with both products, as against 100 lesions in control animals. L. Nègre presented the first results of his researches on Nov. 29, 1949 to the National Academy of Medicine.

Cardiodynamometry

This method is based on the plethysmographic measurement of cardiac flow in the superior limb by the cardiodynamometer. A. Pruche, after having determined on more than 1,000 cases the normal oscillations of the right and left cardiac dynamic coefficients, has been able to determine the pathologic values of these coefficients. The examination comprises three explorations, the patient being in the dorsal decubitus position immediately before, immediately afterward and three minutes after a standard effort consisting of 50 deep flexions of the inferior limbs. The author has often noted fatigue three minutes after the effort, whereas in severer deficiency it is, first, the reaction immediately following the effort which is deficient and afterward the reaction three minutes after the effort. In his report to the French Society of Cardiology of Dec. 18, 1949, the author stressed that the determination of these coefficients permits determination of the indications and contraindications of the cardiac agents, particularly the digitaloids, and of the aptitude for sports and their influence on the myocardium.

Apexopiezography

M. Jacquet has perfected a method, apexopiezography, of registering shocks by piezographic apparatus. He has obtained tracings exploring the left ventricle superimposable on those obtained for the right ventricle by means of venous catheterism and the introduction of a catheter into this cavity. It permits also calculation of the duration of the isometric period of the ventricular systole and chronologic cross checking with electrocardiography and vectocardiography. Apexopiezography, synchronized with, say, the phonocardiogram, gives more accurately than the electrocardiogram the timing of the sounds and murmurs. M. Jacquet presented this method on Oct. 16, 1949 to the French Society of Cardiology.

Statidensigraphy

This is a photoelectric process in which the quantity of roentgen rays passing through a subject in inspiration and in expiration is recorded by a photoelectric cell provided with a radioscopic screen. This method gives the value of the local density of the lung in the static respiratory state and has been called "statidensigraphy" by Marchal (Paris), who evolved it. The patient is placed behind the radioscopic screen, takes a deep respiration and then remains in apnea; the photoelectric receiver is centered on the pulmonary area to be inspected, and a curve is registered on a film. The same operation is made on the patient in expiration and apnea, and from the comparison of both curves the local respiratory capacity of the parenchyma penetrated by the roentgen rays is deduced. He also presented a method permitting the simultaneous registering of pulsation and the respiratory value of the pulmonary parenchyma.

LONDON

(From a Regular Correspondent)

March 21, 1950.

Snooping on Chemists Under the National Health Service

This difficult and longstanding problem was again brought to the fore by the appearance in the *Yorkshire Post* of January 23 of a letter by Dr. O. B. Appleyard, a physician of Ilkley. This letter, which was referred to in the *Chicago Tribune* of February 1, said:

"May I protest, as a law-abiding citizen and a doctor, against an attempt made by the Minister of Health to use my patients and myself in a scheme for snooping upon the chemists?

"The Minister of Health has directed the West Riding Executive Council to ask me for a panel prescription, undated and in triplicate and made out in the name of one of my panel patients. This prescription is to be used 'for the testing of drugs and appliances supplied by the contractors included in the Council's Pharmaceutical List.'"

The doctor is therefore expected, unbeknown to his patients, to write their names over his own signature upon truthless documents, to be used in the furtive misrepresentations of the agent provocateur.

"If I had wished to 'join the ranks of the well-paid men' in this Socialist demi-paradise, I should have become an informer, spiv or snooper—not a doctor. As it is, Mr. Bevan's creatures must sidle about their business without my assistance and without employing my name or the names of my patients.

"The whole contrivance is approved by the present Minister of Health. My profession should thank the Minister for the warning that they must expect similar devices to be used against them."

NOTHING NEW

It is not realized by all family physicians that there is nothing new in this matter. It existed for many years under the old National Health Insurance scheme. It has, however, been raised before—since the National Health Service came into operation (July 5, 1948) and usually by doctors who were not working in the old National Health Insurance practice and who have been approached for the first time.

WHAT THE DOCTORS HAVE SIGNED

Included in the Terms of Service for Medical Practitioners under the National Health Service and which each doctor has signed is the following item:

"*Prescription for Tests*

(11) A practitioner shall comply with any reasonable request by the Council to furnish orders on a form provided by the

Council for drugs and prescribed appliances for the purposes of any scheme for testing drugs and appliances made under the regulations."

ANNOTATION IN THE BRITISH MEDICAL JOURNAL

In the *British Medical Journal* (Dec. 3, 1949, page 1283) it is pointed out, "Regulation 26 of the General Medical and Pharmaceutical Services Regulations, 1948, imposes on executive councils the duty of testing drugs and appliances, but the way in which each executive council performs its duty is set out in a scheme prepared by it and approved by the Minister of Health. The schemes of most, and perhaps all, executive councils probably accord in this respect with a model scheme prepared by the Ministry, where these instructions were given: 'When a test is to be carried out, the clerk shall arrange for an official prescription to be written in duplicate and to be signed by a practitioner on the council's medical list, and the practitioner shall not be informed of the name of the chemist to whom the prescription is to be presented by an agent of the council. . . . who shall be authorized in writing for this purpose.' The agent then tells the chemist the true purpose of the prescription, and the drugs are sent off to be tested."

ALTERNATIVES PREFERRED

The annotation goes on to suggest that "the public, as well as doctors and chemists, would probably prefer to try some alternative to the present arrangements." The General Medical Services Committee recently considered the matter but decided, in the absence of a workable alternative arrangement, not to recommend any alteration in the existing arrangements. The chemists agreed to the existing arrangements and do not raise any strong objection to them.

LOCAL BRITISH MEDICAL ASSOCIATION COMMENT

Dr. J. H. E. Moore, Secretary of the Leeds Division of the British Medical Association, when invited to comment on these tests pointed out that they had been in operation for over 20 years and that it was part of the medical practitioner's contract of service to give such prescriptions. He is quoted by the *Yorkshire Post* as saying, "Although the doctor does not like giving test prescriptions, it is felt that the chemist must be checked, and this is considered to be the only way this can be done. During the war these tests were suspended. As a result, no doubt, a number of practitioners are unaware of this requirement, and it has come as a shock to them to find that it is one of their obligations.

"The request is not made often to any one doctor—perhaps only once a year. Certain irregularities are disclosed occasionally through the tests. Some cases have come to light, arising from non-supervision, where an assistant has been left in charge of a shop. Prescriptions are usually written to ensure that, even if there is a small percentage of error, the consequences will not be serious."

TWO LONDON OBJECTIONS

The London *Evening Standard* reported, "Two London doctors have been told they were wrong in objecting to giving test prescriptions for 'snooping' on chemists. The Medical Benefit Committee, in their report to the London Executive Council of the National Health Service, say: 'With the exception of the two practitioners in question, all doctors who have been asked to supply scripts have responded. The two practitioners hold a mistaken view of the position. The request of the council is not made with the object of setting a trap for the chemist, but only to confirm that he is dispensing in accordance with his agreement. Moreover, the respective terms of service have been accepted by both doctors and chemists. We have directed that the two practitioners in question should be notified that the council have no power to agree to a practitioner disregarding the terms of service and that they should, therefore, provide the prescriptions for which they have been asked.'"

ISRAEL

(From a Regular Correspondent)

JERUSALEM, March 1, 1950.

Health in Israel

All the statistical sources from which it is possible to judge health conditions in the country are not yet available for the period since the declaration of the State of Israel. The fact that these statistics are calculated on a yearly basis renders most of them useless, and a confusing picture is provided for 1948; during one half (May-December) the State was in existence, while 1949 statistics are incomplete. Furthermore, the general mortality rate would be unlikely to give a true picture of health conditions, owing to the fact that it might include a certain number of war victims. The most sensitive indicator of the health of a country, the infant mortality rate, moreover, suffers from the fact that it is usually calculated per 1,000 births—a procedure clearly impossible owing to the large influx of infants born abroad who may, however, die here during their first year of life. Hospital statistics which have been compiled on a tentative scale since 1943 but are now being reorganized are not yet available. The same shortcomings occur in the yearly statistics on infectious diseases. What can be given are monthly absolute numbers of infant deaths and the absolute incidence of infectious diseases for the period of the existence of the State of Israel, in addition to some data on hospitalization and Sick Fund activities.

TABLE 1.—*Infant Mortality Rates for Jews of Palestine*

Year	Rate per 1,000 Births	Number of Infant Deaths
1925	128.9	...
1930	65.8	...
1935	64.2	...
1940	58.1	...
1941	55.6	...
1942	58.0	...
1943	44.1	...
1944	36.1	...
1945	35.9	...
1946	31.5	...
1947	29.2	549
1948	30.0	620

TABLE 2.—*Number of Infant Deaths, 1948-1949*

Month, 1949	Number of Deaths	Month, 1948	Number of Deaths	Month, 1949	Number of Deaths
January	44	July	74	January	85
February	45	August	59	February	91
March	49	September	49	March	79
April	41	October	58	April	62
May	47	November	57	May	110
June	65	December	62	June	108
Jan.-June	294	Jan.-Dec.	620	Jan.-June	558

Tables 1 and 2 show that infant mortality figures have risen in absolute number during the months under survey. The monthly figures as they appear in 1948 total 620, which corresponds to a rate of 36 per 1,000 births. Even this rate is too high, being calculated on births inside the country only. Since May 1948 the Jewish population has increased by about 50 per cent, and there is also a considerable increase in the number of births for the first half of 1949.

There is, in addition, a certain number of infants who were born before their parents reached the country but who died during their first year of life. One would, therefore, have to add to the number of births in the country, as a basis for the calculation of the infant mortality rate, a certain number of births outside the country, the number of which cannot be given exactly but reaches several thousands.

INFECTIOUS DISEASES

For a correct interpretation of table 3, a few preliminary notes are indicated. During the time of the Mandatory Regime, although notification of a number of infectious diseases was compulsory, the cooperation with the health authorities was poor. The degree of reporting, moreover, varied from disease to disease and from one period to the other. While for some of the so-called pestilential disease, such as plague, it was practically 100 per cent, it was about 75 per cent for typhoid, about 30 per cent for diphtheria and less than 1 per cent for pertussis and other "children's diseases." (These percentages are rough estimates made on the premise that the General Workers' Sick Fund covers about half the population and the occurrence of a disease in the population at large must be expected to be about twice that given in Sick Fund figures. Averages are for the years 1945, 1946, 1947 and 1948.) To improve the degree of reporting measures were taken to overcome the resistance of the general public and to insure cooperation of the medical profession. The reorganized reporting service began to operate in May 1949. It should further be borne in mind that the population to which the figures refer has grown by 30 per cent during the period under survey and is practically doubled compared with earlier years.

Table 3 shows that there has been no epidemic since May 1948. This is astonishing, as on certain occasions conditions for the development of epidemics were favorable; e. g., the siege of Jerusalem, with its lack of water during the hot season, lack of food for the population and crowding in airless and lightless shelters for more than a month, in a town where typhoid used to be endemic and in which only a few isolated cases occurred.

An infection new to this country is the type of leptospirosis observed lately. The few cases of leptospirosis which occurred previously had been of Leptospira bovis infection, while now the infective agent is another Leptospira, probably of the grippotyphosa group. The disease is concentrated in the coastal plain. Cases are comparatively mild, and there have been no more than 3 deaths in a total of 278 reported cases. If one takes into account that a number of mild cases without jaundice do not come to the Health Offices' notice, the case fatality rate is less than 1.1 per cent. None of the patients had had any contact with cattle. Apparently the outbreak is due to an invasion of field mice and other rodents, as it occurred this year in the entire country on an unprecedented scale.

With reference to malaria, the figures cannot be taken at their face value. Although the notification scheme provides for a subdivision into new infections and relapses, the majority of cases still appear without any indication as to which group they belong to. In table 3 they are, therefore, given together. Although it is known that new infections have increased, probably because of the breakdown of antimalaria measures during the war, it is difficult to ascertain the exact degree of this increase. It is, however, known that a large proportion of cases is of new immigrants from the Yemen who acquired the infection on their way from Yemen to the Aden Protectorate, from which place they proceeded to this country. It is also this group that accounts for the comparatively large number of deaths due to starvation and hypoproteinemia, which prevails among them.

HOSPITALIZATION

The number of beds available in general hospitals was 2,640 in January 1949 [1] and had increased to approximately 4,000 by the end of September 1949. In this same period the 1,225 beds in mental hospitals had increased to 1,349, while hospitals for tuberculosis remained more or less unchanged. The total hospital beds of 4,680 in January and 6,111 in September means an increase of 1,431 beds, which is approximately 30 per cent. This is also the percentage by which the population has increased during the same period and the hospitalization situation on the whole has remained unchanged; while in January 1949 there were 5.8 beds per 1,000 population, there were 6.1 at the end of September. A certain limited number has been added lately by the erection of camp hospitals on a small scale, but these as well as the general increase in the number of beds are counterbalanced by the higher morbidity rate among new immigrants and the greater urgency for hospitalization among them, because of the inadequacy of their temporary housing.

TABLE 3.—*Incidence of Selected Infectious Diseases*

Number of Cases Reported to the Government in the Second Half of 1948 and January-November 1949

	1948						1949									
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.
Typhoid	85	62	45	31	29	14	6	4	14	5	21	53	76	113	112	114	78
Paratyphoid	44	44	21	24	22	15	10	9	15	6	10	46	42	45	45	60	36
Infectious hepatitis	..	..	..	..	..	..	20	15	25	10	35	20	46	154	176	172	168
Leptospirosis	..	..	..	..	..	..	..	..	..	..	3	3	22	29	46	61	113
Diphtheria	37	89	168	298	258	170	101	45	44	31	45	55	69	120	138	228	227
Malaria																	
New cases *	7	18	27	82	61	8	2	2	2	15	110	226	213	141	141	376	351
Typhus	7	12	11	13	11	10	3	7	3	..	3	22	18	49	34	59	66
Poliomyelitis	..	..	2	1	2	3	1	..	..	2	9	8	20	16	7	15	24
Rabies	2	3	..	..	..	1	..	..	2	..	..	1	..	..	..	1	1

* Includes relapse and unspecified cases.

SICK FUNDS

A certain indication of health conditions may be given by the number of visits of patients in clinics and home visits of physicians of the General Workers' Sick Fund, covering about half the population.

It appears from table 4 that there was no considerable rise in morbidity in 1948 as a whole. On the contrary, figures have actually come down somewhat, probably because during the phase of actual war and disturbances people did not seek medical advice in the same measure as in normal times.

TABLE 4.—*Number of Medical Contacts per 1,000 Membership in Sick Fund*

	1940	1945	1947	1948
Clinic visits	4,216	4,000	3,874	3,540 *
Home calls	701	567	523	480 *

* Estimated figure.

Whether as a result of strict food rationing the health has deteriorated in 1949 will remain to be seen, since figures for that year are not yet available.

1. Figures refer to the civilian population only.

Medical Examinations and Licensure

COMING EXAMINATIONS AND MEETINGS

NATIONAL BOARD OF MEDICAL EXAMINERS

NATIONAL BOARD OF MEDICAL EXAMINERS: *Part II.* Various medical schools, April 24-25. *Parts I and II.* Various locations, June 19-21. Final date for accepting applications is May 19. Exec. Sec., Mr. E. S. Elwood, 225 S. 15th Street, Philadelphia.

EXAMINING BOARDS IN SPECIALTIES

AMERICAN BOARD OF ANESTHESIOLOGY: *Written.* Various locations, July 21. *Oral.* Philadelphia, April 23-27, Chicago, Oct. 8-11. Sec., Dr. Curtiss B. Hickcox, 745 Fifth Ave., New York 22.

AMERICAN BOARD OF DERMATOLOGY AND SYPHILOLOGY: *Oral.* Washington, April 14-16. Sec., Dr. George M. Lewis, 66 E. 66th Street, New York 21.

AMERICAN BOARD OF INTERNAL MEDICINE: *Oral.* San Francisco, June 21-23. The oral examinations in the subspecialties will be held at the same time and places. *Written.* Oct. 16. Final date for acceptance of applications is May 1. Asst. Sec., Dr. William A. Werrell, 1 West Main Street, Madison 3, Wis.

AMERICAN BOARD OF NEUROLOGICAL SURGERY: *Oral.* Chicago, June 3. Applications no longer accepted. Chicago, Oct. 1950. Final date for filing applications is April 30. Sec., Dr. W. J. German, 789 Howard Ave., New Haven, Conn.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY, Inc. *Oral Part II.* Atlantic City, May 21-27. Sec., Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh.

AMERICAN BOARD OF ORTHOPAEDIC SURGERY: *Part I.* New York, April 21-22; Atlanta, April 28-29; Indianapolis, April 28-29; Denver, May 5-6. Sec., Dr. Harold A. Sofield, 122 S. Michigan Ave., Chicago.

AMERICAN BOARD OF OPHTHALMOLOGY: *Written.* Various Centers, January 1951. Final date for filing applications is July 1, 1950. *Practical.* Boston, May 22-26; Chicago, Oct. 2-6; West Coast, Jan. 1951. Sec., Dr. Edwin B. Dunphy, 56 Ivie Road, Cape Cottage, Maine.

AMERICAN BOARD OF OTOLARYNGOLOGY: *Oral.* San Francisco, May. Chicago, October. Sec., Dr. Dean M. Lierle, University Hospital, Iowa City.

AMERICAN BOARD OF PEDIATRICS: Cincinnati, May 5-7; San Francisco, June 30-July 2. Exec. Sec., Dr. John McK. Mitchell, 6 Cushman Road, Rosemont, Pa.

AMERICAN BOARD OF PHYSICAL MEDICINE AND REHABILITATION: *Oral and Written.* Boston, Aug. 26-27. Final date for filing applications is April 1. Sec., Dr. Robert L. Bennett, 30 N. Michigan Ave., Chicago.

AMERICAN BOARD OF PLASTIC SURGERY: *Oral.* May-June. Sec., Dr. Louis T. Byars, 4647 Pershing Avenue, St. Louis, Mo.

AMERICAN BOARD OF PREVENTIVE MEDICINE AND PUBLIC HEALTH: *Written.* Portland, Ore., May 28. *Oral.* Portland, Ore., May 29. Sec., Dr. E. L. Stebbins, 615 N. Wolfe St., Baltimore 5, Md.

AMERICAN BOARD OF PROCTOLOGY: *Part I.* San Francisco, Dallas, Minneapolis and Philadelphia, May 13. Sec.-Gen., Dr. Louis A. Buie, 102-110 Second Ave. S.W., Rochester, Minn.

AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY: San Francisco, June 23-24. Applications no longer accepted. Next examination, December 1950. Final date for filing applications is Sept. 1.

AMERICAN BOARD OF RADIOLOGY: *Oral.* Chicago, week of June 18. Sec., Dr. B. R. Kirklin, 102-110 Second Ave., S.W., Rochester, Minn.

AMERICAN BOARD OF SURGERY: *Written.* Various centers, Oct. 25. Final date for filing applications is July 1. Sec., Dr. J. Stewart Rodman, 225 South 15th Street, Philadelphia.

AMERICAN BOARD OF UROLOGY: Chicago, Feb. 10-14, 1951. Final date for filing applications is Sept. 1, 1950. Sec., Dr. Harry Culver, 7935 Sunnyside Road, Minneapolis 21.

BOARDS OF MEDICAL EXAMINERS

ALABAMA: *Examination.* Montgomery, June 27-29. Sec., Dr. D. G. Gill, 519 Dexter Avenue, Montgomery.

ARIZONA: * *Examination and Reciprocity.* Phoenix, April 18-19 and April 22. Sec., Dr. J. H. Patterson, 316 West McDowell Road, Phoenix.

ARKANSAS: * *Examination.* Little Rock, June 8-9. Sec., Dr. Joe Versser, Harrisburg. Homeopathic. Little Rock, June and November. Sec., Dr. Carl S. Bungart, 105 N. 14th St., Fort Smith. *Eclectic.* Little Rock, June 8-9. Sec., Dr. Clarence H. Young, 1413 Main Street, Little Rock.

CALIFORNIA: *Examination, Written.* San Francisco, June 19-22; Los Angeles, Aug. 21-24; Sacramento, Oct. 16-19. *Examination, Oral and Clinical for Foreign Medical School Graduates.* San Francisco, June 19; Los Angeles, Aug. 20; San Francisco, Nov. 12. *Reciprocity, Oral Examination.* San Francisco, June 17; Los Angeles, Aug. 19; San Francisco, Nov. 11. Sec., Dr. Frederick N. Scatena, 1020 N Street, Sacramento 14.

CONNECTICUT: * *Examination.* Hartford, July 11-12. Sec. to the Board, Dr. Creighton Barker, 160 St. Ronan St., New Haven. *Homeopathic.* Derby, July 11-12. Sec., Dr. Donald A. Davis, 38 Elizabeth St., Derby.

DELAWARE: *Examination.* Dover, July 11-13. *Reciprocity.* Dover, July 20. Sec., Dr. J. S. McDaniel, 229 S. State St., Dover.

DISTRICT OF COLUMBIA: *Examination.* Washington, May 8-9. Sec., Dr. Daniel L. Seckinger, 4130 E. Municipal Bldg., Washington 1.

FLORIDA: * Jacksonville, June 25-27. Sec. Dr. Frank D. Gray, 12 N. Rosalind Avenue, Orlando.

GEORGIA: *Examination.* Atlanta and Augusta, June. *Endorsement.* Atlanta, June. Sec., Mr. R. C. Coleman, 111 State Capitol, Atlanta 3.

HAWAII: *Examination.* Honolulu, July 10-13. Sec., Dr. I. L. Tilden, 1020 Kapiolani St., Honolulu.

IDAHO: Boise, July 10. Sec., Mr. Armand L. Bird, 305 Sun Bldg., Boise.

INDIANA: *Examination.* Indianapolis, June. Sec., Dr. Paul R. Tindall, 1138 K. of P. Bldg., Indianapolis.

IOWA: * *Examination.* Iowa City, June 12-14. Sec., Dr. M. A. Royal, 506 Fleming Building, Des Moines 19.

KANSAS: Kansas City, June 7-8. Sec., Dr. J. F. Hassig, 903 N. 7th Street, Kansas City.

KENTUCKY: *Examination.* Louisville, June 14-16. Sec., Dr. Bruce Underwood, 620 S. 3rd Street, Louisville 2.

MAINE: *Examination and Reciprocity.* Augusta, July 11-12. Sec., Dr. Adam P. Leighton, 192 State St., Portland.

MARYLAND: *Examination.* Baltimore, June 20-23. Sec. Dr. Lewis P. Gundry, 1215 Cathedral Street, Baltimore 1. *Homeopathic.* Baltimore, June 20-21. Sec., Dr. John A. Evans, 612 W. 40th St., Baltimore.

MASSACHUSETTS: *Examination.* Boston, July 11-14. Sec., Dr. George L. Schadt, Room 37, State House, Boston 33.

MINNESOTA: * Minneapolis, April 18-20. Sec., Dr. Julian F. Dubois, 230 Lowry Medical Arts Bldg., St. Paul 2.

MISSOURI: Examination. St. Louis, May 31-June 2 and June 7-9. Exec. Sec., Mr. John A. Hailey, Box 4, State Capitol Building, St. Louis.

NEBRASKA: * *Examination.* Omaha, June 5-7. Director, Bureau of Examining Boards, Mr. Oscar F. Humble, 1009 State Capitol Building, Lincoln 9.

NEVADA: Carson City, May 1. Sec., Dr. George H. Ross, 112 Curry Street, Carson City.

NEW HAMPSHIRE: Concord, Sept. 13. Sec., Dr. John Samuel Wheeler, 107 State House, Concord.

NEW JERSEY: *Examination.* Trenton, June 20-23. Sec., Dr. E. S. Ballenger, 28 West State Street, Trenton.

NEW YORK: *Examination.* Albany, Buffalo, New York and Syracuse, June 27-30. Sec., Dr. Jacob L. Lockner, Jr., 23 S. Pearl St., Albany.

NORTH CAROLINA: *Endorsement.* Pinehurst, May 1. *Written.* Raleigh, June 19-22. *Endorsement.* Raleigh, June 19. Sec., Dr. Ivan Proctor, 226 Hillsboro Street, Raleigh.

NORTH DAKOTA: *Examination.* Grand Forks, July 5-7. *Reciprocity.* Grand Forks, July 8. Sec., Dr. C. J. Glaspel, Grafton.

OHIO: *Examination.* Columbus, June 14-17. Sec., Dr. H. M. Platter, 21 W. Broad St., Columbus 15.

OKLAHOMA: * *Examination.* Oklahoma City, June 7-8. Sec., Dr. Clinton Gallaher, 813 Braniff Building, Oklahoma City.

OREGON: *Endorsement.* Portland, April 28-29. *Written.* Portland, July. Exec. Sec., Mr. Howard I. Babbitt, 609 Failing Building, Portland 4.

SOUTH CAROLINA: *Examination.* Columbia, June 26-29. *Reciprocity.* First Monday of each month. Sec., Dr. N. B. Heyward, 1329 Blanding Street, Columbia.

SOUTH DAKOTA: * Sioux Falls, July 18-19. Sec., Dr. C. E. Sherwood, 300 First National Bank Bldg., Sioux Falls.

TEXAS: * *Examination.* Austin, June 19-21. Sec., Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth 2.

UTAH: *Examination.* Salt Lake City, June. Dir., Dr. Frank E. Lees, 324 State Capitol Building, Salt Lake City.

VIRGINIA: *Examination.* Richmond, June 23-24. *Endorsement.* Richmond, June 22. Sec., Dr. K. D. Graves, 631 First St., S.W., Roanoke.

WISCONSIN: * Milwaukee, July 11-13. Sec., Dr. C. A. Dawson, River Falls.

WYOMING: *Examination.* Cheyenne, June 5. Sec., Dr. Franklin D. Yoder, Capitol Bldg., Cheyenne.

* Basic Science Certificate required.

BOARDS OF EXAMINERS IN THE BASIC SCIENCES

ARKANSAS: *Examination.* Little Rock, May 9. Sec., Mr. L. E. Gibson, 1002 Donaghey Building, Little Rock.

CONNECTICUT. *Examination.* New Haven, June 10. Exec. Asst., State Board of Healing Arts, M. G. Reynolds, 110 Whitney Ave., New Haven.

DISTRICT OF COLUMBIA: Washington, April 17-18. Sec., Dr. Daniel L. Seckinger, 4130 E. Municipal Building, Washington.

FLORIDA: *Examination.* Gainesville, June 3. Sec., Mr. M. W. Emmel, University of Florida, Gainesville.

MICHIGAN: *Examination.* Detroit and Ann Arbor, May 12-13. Sec., Miss Eloise LeBeau, 101 N. Walnut St., Lansing.

NEBRASKA: *Examination.* Omaha, May 2-3. Director, Bureau of Examining Boards, Mr. Oscar F. Humble, 1009 State Capitol Bldg., Lincoln.

OREGON: Portland, June 17. Sec., Dr. C. D. Byrne, University of Oregon, Eugene.

RHODE ISLAND: *Examination.* Providence, May 10. Administrator of Professional Regulation, Mr. Thomas B. Casey, 366 State Office Bldg., Providence.

SOUTH DAKOTA: Vermillion, June 2-3. Sec., Dr. Gregg M. Evans, 310 E. 15th Street, Yankton.

TEXAS: *Examination.* Austin, April 21-22. Sec., Brother Raphael Wilson, 306 Nalle Building, Austin.

Medical Motion Pictures

FILM REVIEWS

The Medical Examination, Part 1, Importance (TPS-1536). 16 mm., black and white, sound, showing time nineteen minutes. Produced in 1949 by the United States Army. Procurable on loan from the Army Surgeon of the Army area in which the request originates.

This production is part 1 in a series of motion pictures on the medical examination. Part 2 is entitled "History" and part 3, "The Examination." The film explains the importance of the medical examination for military and civilian personnel. The attitude of the examining doctor, the doctor-patient relationship, doctor-doctor relationship and doctor-administrator relationship are all important to the proper conduct of the medical examination and the maintenance of accurate records. The examining doctor should bear in mind that strong points or defects uncovered must be considered in relation to the whole man and the job the man is to do. Since the war numerous medical examination forms and standards have been consolidated and simplified, so that at the present time the same standards and forms are used for the Army, Air Forces, Navy, Veterans Administration and Public Health Service wherever possible. The message could have been presented much more dramatically and effectively. It could also be condensed to advantage.

This film is intended for information and guidance of medical doctors in government service—military and civilian—and other medical examining personnel, medical schools and civilian professional medical personnel, medical administrators and placement personnel. The photography and narration are excellent.

Splenectomy for Splenomegaly. 16 mm., color, silent, 350 feet, showing time fifteen minutes. Prepared in 1949 by Raymond W. McNealy, M.D., Chief Surgeon, Wesley Memorial Hospital, Associate Professor of Surgery, Northwestern University Medical School, Chicago. Produced by and procurable on rental or purchase from Mervin W. La Rue, Inc., 159 East Chicago Avenue, Chicago 11.

This film shows the approach and technic of splenectomy for an enlarged spleen. A left subcostal incision is used which gives adequate exposure. The method of delivering the spleen from the left upper abdominal quadrant and the demonstration of a large accessory spleen in the hilus of the spleen is fairly well shown. Closure of the wound is made with a running suture of surgical gut for the peritoneum and interrupted suture of fine wire for the fascia.

Neither the history nor the indication for the splenectomy is given. The anatomy involved in a splenectomy is not too well demonstrated. The surgical technic is good.

This motion picture can be recommended as an adjunct to a lecture on splenectomy and also for demonstrating the technic of splenectomy to medical students, interns, residents and surgeons. The photography is excellent.

Cholecystojejunostomy. 16 mm., color, silent, 400 feet, showing time fifteen minutes. Prepared in 1949 and procurable on loan or purchase from Philip Thorek, M.D., 25 East Washington Street, Chicago 2.

This motion picture shows the technic of a cholecystojejunostomy which is performed in a 62 year old man for an inoperable carcinoma of the head of the pancreas. A brief history is presented. The technic for performing the anastomosis between the distended gallbladder and the upper jejunum is well shown. The anastomosis is made antecolic and with interrupted cotton sutures throughout. Such a procedure is applicable as a palliative procedure for inoperable carcinoma with jaundice or as the first stage of a pancreaticoduodenectomy. The patient shown had a small metastatic nodule in the left lobe of the liver, which is removed for microscopic study. The technic of liver biopsy is also shown.

The technic is excellent and the pathology is well demonstrated. The film can be recommended to demonstrate technic to medical students, interns, residents and surgeons. It can also be recommended as an adjunct to a lecture on carcinoma of the pancreas. The photography is satisfactory.

Bureau of Legal Medicine and Legislation

MEDICOLEGAL ABSTRACTS

Nurses: Right to Recover Workmen's Compensation for Tuberculosis Incurred During Employment at Tuberculosis Hospital.—The claimant filed suit for an award of compensation under the workmen's compensation act for personal injury incurred while she was a nurse employed at the Belmont Hospital, a tuberculosis hospital. From an award in favor of the employee, which was affirmed by the reviewing board, the hospital appealed to the Supreme Judicial Court of Massachusetts.

The employee commenced working for the Belmont Hospital on May 7, 1945, and at that time roentgenograms disclosed no evidence of tuberculosis. Roentgenograms made the following July, the following December and Jan. 9, 1946 were also negative for tuberculosis. Subsequently the claimant felt tired and run down and terminated her employment with the hospital and went to work for another employer. On Jan. 8, 1947 she was referred to the Belmont Hospital by her employer for another roentgenogram, which revealed an active tubercular infection of the left lung. She was admitted to the hospital as a patient about two weeks later with a diagnosis of far advanced pulmonary tuberculosis. During the time of her employment at the hospital she worked eight hours a day, most of the time in a so-called positive ward. She attended to the patients, collected sputum boxes, wiped off bed stands with disinfectant, made the beds, bathed patients who required special care, brought in and collected trays of food and did whatever other work was required. At times her face and clothing would be sprayed by the coughing of the patients. The physician who was medical director at the hospital during the time the employee worked there and who later saw her as a private patient in May 1947 testified that in his opinion the employee contracted tuberculosis while employed at the Belmont Hospital; that she contracted it through her contact with "wide open cases of tuberculosis"; that the exposure in the present case which was responsible for the employee's "infection with tuberculosis" was in "caring for the patient himself," meaning "waiting on the patient, bringing the patient his food, making the patient's bed, giving the patient a bath, emptying his sputum box and anything that brings the nurse into contact with the patient," and that "it is his opinion that it is an occupational disease—that there is a hazard . . . peculiar to tuberculosis hospitals."

The principal question for decision, said the Supreme Judicial Court, is whether the disease of tuberculosis constitutes a personal injury under the Massachusetts workmen's compensation act, which provides, in part: "'Personal injury' includes infectious or contagious diseases if the nature of the employment is such that the hazard of contracting such diseases by an employee is inherent in the employment." When, because of the nature of the employment, a possibility exists that an employee may contract an infectious or contagious disease, it becomes a question of fact, said the Supreme Judicial Court, whether the likelihood of infection or contagion is so essentially characteristic of the employment as to warrant a finding that the danger is inherent therein. In our opinion, the court concluded, the danger of acquiring tuberculosis germs in a hospital while there employed in nursing positive cases of tuberculosis could be found to be a hazard inherent in the employment. The finding of the board that the employee sustained a personal injury under the workmen's compensation act, said the court, was therefore justified, and the ruling of the board granting an award of compensation to the employee was accordingly affirmed. —*Perron's Case, 88 N. E. (2d) 637 (Mass., 1949).*

Current Medical Literature

AMERICAN

The Association library lends periodicals to members of the Association and to individual subscribers in Continental United States and Canada for a period of three days. Three journals may be borrowed at a time. Periodicals are available from 1939 to date. Requests for issues of earlier date cannot be filled. Requests should be accompanied with stamps to cover postage (6 cents if one and 18 cents if three periodicals are requested). Periodicals published by the American Medical Association are not available for lending but can be supplied on purchase order. Reprints as a rule are the property of authors and can be obtained for permanent possession only from them.

Titles marked with an asterisk (*) are abstracted below.

Alabama State Medical Assn. Journal, Montgomery

19:125-156 (Nov.) 1949

Admission to Medical College of Alabama. S. Graves.—p. 125.
Portal Hypertension: Its Surgical Management. W. F. Nickel. —p. 128.
Treatment of Migraine with Cafergone. L. L. Friedman.—p. 137.

19:157-188 (Dec.) 1949

Saddle Block Anesthesia in Obstetrics. C. L. Buerger Jr.—p. 157.
Preventive Mental Hygiene in Alabama. C. J. Gamble.—p. 160.
Surgery of Colon, with Special Reference to End-to-End Anastomosis. E. Drennen and S. A. Kahn.—p. 163.
Chloromycetin Therapy in Rocky Mountain Spotted Fever: Report of 2 Cases. E. H. Edwards, W. H. Irwin and H. L. Holley.—p. 165.

American Journal of Diseases of Children, Chicago

78:821-984 (Dec.) 1949

End Results in Treatment of Congenital Hypothyroidism: Follow-Up Study of Physical, Mental and Behavioral Development. L. S. Radwin, J. P. Michelson, A. B. Berman and B. Kramer.—p. 821.
*Measles Encephalitis: Study of 50 Cases. S. Sawchuk, A. C. LaBoccetta, A. Tornay and others.—p. 844.
Febrile Convulsions in Childhood: Clinical and Electroencephalographic Study. M. A. Lennox.—p. 868.
Acute Respiratory Disorders Among Newborn Infants in Obstetric Nurseries: Experience in New York City, 1940-1948. H. Abramson. —p. 883.
Hypertrophy of Colliculus Seminalis in Childhood: Report of 18 Cases. S. H. Johnson III and W. C. Price.—p. 892.
Comparison of Stability of Reduced Ascorbic Acid in Raw and Pasteurized Milk. A. D. Holmes.—p. 899.
Gelatinous Edema: Pathognomonic Sign in Mumps. G. Heller.—p. 903.

Measles Encephalitis.—Sawchuk and associates state that among the 13,037 cases of measles reported to the Philadelphia Health Department during the 1946 epidemic there were 14 cases of measles encephalitis, a ratio of 1 to 1,000. The last 50 cases of measles encephalitis, including the 14 of 1946, treated at the Philadelphia Hospital for Contagious Diseases were analyzed. Sixteen of the 50 patients died, a mortality rate of 32 per cent. Many of the patients had complications in addition to the encephalitis; 18 had pneumonia. Spinal fluid studies indicated that a low cell count (less than 50 cells) in measles encephalitis indicates a grave prognosis. Dehydration therapy consisted in limitation of fluids by mouth and the administration of hypertonic dextrose solution intravenously, hypertonic magnesium sulfate enemas and concentrated human plasma intravenously. Prophylactic chemotherapy, usually penicillin, was instituted early. Results of dehydration therapy when compared with those of nondehydrating therapy present a small difference in the percentage of mortality which is not statistically significant. Dehydration therapy seemed in some instances to prevent further involvement of the brain. Neurologic and psychologic examinations were made on 19 of the 34 surviving patients. Only 2 of the 19 appeared normal. The greatest number of neuromuscular disorders involved the extremities; most of the others involved the cranial nerves. Four of the mentally defective patients had electroencephalograms made, 3 of which were interpreted as abnormal. Nine patients with central nervous system disease complicating measles came to autopsy. The gross picture of measles encephalitis was suggested by edema, engorgement of the superficial meningeal vessels and prominence of the smaller vessels in the white matter. In an occasional case perivascular staining indicated focal hemorrhages. The brain was not heavier than normal, but the convolutions were flattened as a result of edema. A cerebellar herniation cone may be present and may account for central cardiorespiratory failure. The changes are not specific, as they may be seen in any of the encephalitides.

Am. J. Syphilis, Gonorrhea and Ven. Dis., St. Louis

33:509-628 (Nov.) 1949

Effect of Chloramphenicol in Early Syphilis. R. C. V. Robinson, L. M. Fox and R. C. Duvall.—p. 509.
Penicillin in Oil with Aluminum Monostearate: Its Effect on Prolonging Blood Concentrations of Penicillin and Preliminary Report of Its Use in Treatment of Syphilis. S. R. Taggart, F. D. Hendricks, V. L. Chandler and others.—p. 515.
Experiencies with Single and Multiple Treatment Schedules of Early Syphilis with Procaine Penicillin in Oil and Aluminum Monostearate. E. W. Thomas, C. R. Rein and D. K. Kitchen.—p. 523.
*Neurosyphilis III. Evaluation After Three Years of Treatment with Penicillin Alone and with Combination of Penicillin and Malaria. A. C. Curtis, W. T. Kruse and D. H. Norton.—p. 527.
*Effect of Five Years of Penicillin Alone on Neurosyphilis: Including Some Comparisons with Prepenicillin Methods. J. H. Stokes, M. S. Falk, G. D. Gammon and others.—p. 537.
Penicillin Therapy in Asymptomatic Neurosyphilis. Comparison of Effects of Amorphous Penicillin, Penicillin in Oil and Wax, and Crystalline Penicillin G. F. T. Nichols Jr. and A. Heyman.—p. 561.
Penicillin Failures in Neurosyphilis. B. Dattner.—p. 571.
New Threshold in Venereal Disease Control. J. R. Heller Jr.—p. 576.
Frequency of Discovery of Syphilis in Upstate New York Between 1936 and 1943. W. H. Hasenzel and J. H. Lade.—p. 579.
Use of Cardiolipin Lecithin in Preparation of Antigen for Hinton Test. W. A. Hinton, G. O. Stuart and J. F. Grant.—p. 587.
Oral Aureomycin in Therapy of Granuloma Inguinale. R. B. Greenblatt, V. S. Wammock, R. M. West and others.—p. 593.

Neurosyphilis: Treatment with Penicillin and Malaria.—Curtis and his co-workers report 602 patients with various types of neurosyphilis who were treated with penicillin or penicillin plus malaria since 1944. It was possible to follow 380 of these patients for one to more than three years after a single course of treatment. The clinical failure rate was found to be 6 per cent with either type of therapy. Patients with various types of syphilis of the central nervous system, including dementia paralytica, respond equally as well to penicillin alone as to penicillin plus malaria. This response is shown in both clinical and spinal fluid improvement.

Effect of Penicillin Alone on Neurosyphilis.—Stokes and his collaborators say that the Penicillin-Syphilis Panel at the University of Pennsylvania has been using penicillin alone in the treatment of neurosyphilis. The incidence of normal or near normal spinal fluid values has been held or slightly improved in 1948. It ranges from slightly over half of the cases of dementia paralytica to four fifths in the tabetic form of dementia paralytica and asymptomatic neurosyphilis. Meningovascular neurosyphilis showed slightly poorer long-term spinal fluid results than the other types. For cases of relapse or slow response the authors recommend retreatment with total doses of about 10 million units in two hour, round-the-clock hospitalization sessions at 80,000 to 100,000 units per injection of crystalline penicillin G. There is hope for arrest by penicillin in any phase of neurosyphilis including dementia paralytica up to five years' observation. Serologic cures without clinical improvement and the reverse may be obtained. Repeated courses of penicillin may produce improvement with prolonged normality of the spinal fluid and five year arrest of progressive and relapsing primary optic atrophy in the tabetic form of dementia paralytica. Even small doses of penicillin occasionally effect prolonged relief in tabetic pain. A comparison of round-the-clock aqueous penicillin G with penicillin in oil and beeswax at 600,000 units once daily in a small series of patients with asymptomatic neurosyphilis (66 cases) at a total dosage level of 4.8 million units showed practically no difference in spinal fluid response in one hundred and twenty days. A pilot study of prepenicillin therapy of neurosyphilis in 51 patients is reviewed as background for interpreting the effects of penicillin therapy. This study suggests that treatment with arsphenamine and bismuth compounds alone may be effective, that without malaria but with tryparsamide and typhoid vaccine (and notably the former) normal and near normal spinal fluid values were obtained in 80 per cent of the patients in an observation period of two to twenty years. In this pilot study more than one-half the patients who achieved a normal or nearly normal fluid did so by the second year.

Anesthesiology, New York

10:663-790 (Nov.) 1949. Partial Index

Brain and Symptomatology of Anoxias. H. E. Himwich.—p. 663.
Oxygen and Carbon Dioxide Content of Arterial Blood Before and During Spinal Analgesia. K. E. Latterell and J. S. Lundy.—p. 677.
Supplementation with Demerol During Nitrous Oxide Anesthesia. M. Brotman and S. C. Cullen.—p. 696.
Effect of Cyclopropane on Cardiac Work Capacity. G. K. Moe, B. R. Rennick, W. A. Freyburger and S. D. Mahon.—p. 706.
*Hemiplegia Following Tonsillectomy. J. F. B. Zweighaft.—p. 729.
Continuous Segmental Epidural Anesthesia with Catheter via Caudal Canal: Preliminary Note. M. J. Frumin and V. Apgar.—p. 733.
Transtracheal Anesthesia for Endotracheal Intubation. J. J. Bonica.—p. 736.
Intravenous Procaine: Its Effect on Liver Function in Man as Determined by Cephalin Flocculation Test. B. L. Steinberg.—p. 739.
Management of Positive Pressure in Endotracheal Anesthesia. P. Saunders.—p. 743.
Anaphylactic Reaction to Intravenous Administration of Procaine. L. F. Schiff and L. J. Schiff.—p. 753.

Hemiplegia Following Tonsillectomy.—Zweighaft reports the case of a boy, aged 5, who was hospitalized for tonsillectomy and adenoidectomy. On the day after the operation a flaccid hemiplegia and peripheral facial palsy were observed on the left side. A provisional diagnosis of polioencephalitis was made, and subsequently several other diagnoses were suggested. After four weeks in the hospital the child was discharged with a slight residual weakness in the left arm and left leg. Continued improvement was evident two months after the operation. The author suggests that a localized vascular accident was probably responsible for the hemiplegia in this patient. He discusses the role of the carotid sinus and suggests the possibility of causing cerebral damage by elevating or lowering the blood pressure. Undue pressure on a sponge in the tonsillar fossa might act either way. The author advocates the use of oxygen rather than air to bring ether to the patient. The literature suggests that anesthesia is responsible for a small percentage of the neurologic complications of tonsillectomy. Induction of anesthesia for tonsillectomy should not be relegated to second rate anesthetists; tonsillectomy may be a minor operation but it certainly requires major anesthesia.

Annals of Surgery, Philadelphia

130:985-1118 (Dec.) 1949

*Limitations of Vagotomy in Treatment of Peptic Ulcer: Critical Follow-Up Analysis of 50 Cases. M. J. Healy Jr. and P. K. Sauer.—p. 985.
Reflections on Surgical Principles in Treating Cancer of Colon and Rectum: Based on Analysis of 70 Patients. U. Maes and I. M. Esnig.—p. 1008.
*Uses of Plastic Tubes in Reparative Surgery of Battle Injuries to Arteries With and Without Intra-Arterial Heparin Administration. T. J. Donovan.—p. 1024.
Acute Pancreatitis: Clinical Evaluation and Review of 154 Cases. L. J. Morse and S. Achs.—p. 1044.
Intrathoracic Pheochromocytoma with Hypertension. H. C. Maier.—p. 1059.
Spontaneous Rupture of Esophagus: Report of 2 Cases: 1 with Recovery After Surgical Repair. E. E. Clifton.—p. 1066.
Gastropericardial Fistula Following Transthoracic Esophagectomy. C. J. Schein, G. L. Judson and A. C. Hemphill.—p. 1074.
*Diaphragmatic Hernia with Complete Evisceration of Liver. W. P. Kleitsch, A. D. Munger and W. F. Johnson.—p. 1079.
Hourglass Stomach Caused by Annular Muscular Hypertrophy: Report of Case. C. M. Schroeder.—p. 1085.
Coarctation of Aorta at Level of Diaphragm: Case Report. C. B. Ohm.—p. 1091.
Unilateral Macrostomia: Case Report. R. H. Clifford.—p. 1098.
Basal Cell Carcinoma of Anus. B. D. Lott and C. M. Alexander.—p. 1101.
Compact Camera and Light Source for Photography Under Sterile Conditions. E. C. Peirce 2d. and A. H. Bill Jr.—p. 1104.

Limitations of Vagotomy in Treatment of Peptic Ulcer.—Healy and Sauer present a follow-up analysis of 50 patients treated by transthoracic vagotomy, 41 for duodenal ulcer and 9 for marginal gastrojejunal ulcerations. All had intractable pain, and 64 per cent also gave a history of one or more episodes of gastrointestinal bleeding. The patients were operated on through the lower left transthoracic route, with or without rib resection. In 3 patients there developed severe symptoms of obstruction following the vagotomy, and 1 of the 3 died. One patient required gastric resection three weeks after vagotomy. In 47 patients there was relief of symptoms, diminution of secretory volume and acidity but also a high incidence of gastric atony. Symptomatic results were excellent in 9 patients, good in 18, fair in 6 and a failure in 17. There were 5 failures in the early postoperative period due to unrelenting atony, which necessitated additional surgical intervention. In the remaining 12 failures there was a recurrence of preoperative symptoms. Healing of the ulcer was noted on roentgen examination in 21 of the patients. Nineteen showed either persistence or recurrence of the ulcer. In the failures the relief of pain was temporary, lasting from three to twenty-four months. Nine of the 17 failures required subsequent gastric resection or a gastroenterostomy. In 3 of these patients marginal ulcers developed later. Bleeding was noted in 11 patients. To reconcile these poor results with the favorable reports of other observers it should be emphasized that they are frequently based on vagotomy combined with gastroenterostomy, which alone generally gives excellent early results. According to the data presented here a patient subjected to vagotomy has one chance in five of securing complete relief, two chances in three of being benefited to some extent and one chance in three of failure, all within an average of eighteen months postoperatively. For this rather dubious benefit he must accept a small mortality risk and the prospect that continued freedom from ulcer symptoms is by no means assured. Half the time he must also endure persistent symptoms of gastric atony, which may be more disabling than the original ulcer. The authors believe that vagotomy has not proved successful in a sufficient number of cases to justify its routine use.

Plastic Tubes in Reparative Surgery of Injuries to Arteries.—Donovan describes investigations undertaken to determine how well plastic tubes bridge gaps in arteries. Polyethylene tubes were used to bridge gaps in the arteries of dogs. Pure polyethylene, like lucite,* is relatively well tolerated in the tissues surrounding the femoral artery of dogs and in the subcutaneous tissues of dogs and rats. The mediastinal tissues of dogs also showed slight to moderate reaction to pure polyethylene. The material has a capacity similar to that of lucite* for delaying the in vitro coagulation of blood, being about twice that of glass and nearly as great as that of paraffin and collodion. Polyethylene repels water relatively well and, like lucite,* follows Lampert's rule that the capacity of a surface for delaying coagulation is inversely proportional to its "wettability." Polyethylene tubes will permanently bridge gaps in the thoracic aorta of dogs. Many of these anastomoses, however, are complicated by thrombosis, embolism and aortic rupture. Anastomoses of the femoral arteries of dogs with polyethylene and lucite* tubes have average durations of patency of two and three days, respectively. Lining the polyethylene tubes with silicone or saturating them with heparin preoperatively did not increase the average duration of patency. A new instrument for retracting the walls of arteries facilitates the insertion of these artificial tubes. Although the plastic tube anastomoses are inferior to intima coaptation technics for the avoidance of thrombosis, their gradual occlusion over a period of days stimulates collateral circulation and prevents the severe ischemia which follows arterial ligation. In repairing battle injuries to arteries with plastic tubes, assurance of patency of the anastomoses beyond the period of post-traumatic edema would probably require supplementary anticoagulant therapy. Although intravenously given anticoagulants are usually impractical in war wounds, a new method for the intra-arterial administration of heparin has shown promise and merits further study.

Diaphragmatic Hernia with Complete Evisceration of Liver.—Kleitsch and his associates report a man, aged 54, who was injured six and one-half years previously in an automobile accident. A huge elliptic calculus was removed from the ureter in the course of an exploratory operation on the right kidney. The operation was followed by what appeared to be atelectasis, but after further roentgenographic studies it proved to be a right diaphragmatic hernia. A thoracotomy revealed the entire liver, the major portion of the transverse colon and the hepatic flexure of the colon occupying the right pleural space. There was a central defect in the diaphragm, through which the organs had entered the pleural cavity. The defect was approximately 10 cm. in diameter with a thick, rolled edge. It was impossible to return the liver into the abdomen through the existing defect. An incision was made, extending the defect anterolaterally. The transverse colon was then reduced. The liver was replaced by first replacing the left lobe through the defect in the diaphragm and then gradually manipu-

lating the right lobe beneath it. The defect was closed with interrupted, heavy nylon sutures under considerable tension. Adequate inflation of the lung was obtained, and the thoracotomy wound was closed. The patient was ambulant on the fifth postoperative day. Fluoroscopy of the chest five months later revealed an active right diaphragm with some fixation laterally but without evidence of herniation.

Archives of Dermatology and Syphilology, Chicago

61:1-174 (Jan.) 1950

Cutaneous Changes in Lupus Erythematosus: Histopathologic Aspects, with Special Reference to Vascular Changes. W. G. McCreight and H. Montgomery.—p. 1.

Lymphosarcoma Treated with Nitrogen Mustard: Report of Case. S. E. Sweitzer, H. A. Cumming and G. D. McAfee.—p. 12.

Chronic Lupus Erythematosus: Report of Unusual Case with Concomitant Subcutaneous Edematous Nodes and Swellings; Historical Review. J. L. Grund.—p. 20.

Theory of Pathogenesis of Ordinary Human Baldness. T. S. Szass and A. M. Robertson.—p. 34.

Penicillin in Treatment of Experimental Syphilis of Rabbits: V. Synergistic or Additive Activity of Penicillin Injected Intramuscularly with Sodium Iodide Administered Orally and Intravenously. J. A. Kolmer.—p. 49.

Id.: VI. Synergistic or Additive Activity of Penicillin Injected Intramuscularly and Tryparsamide Administered Intravenously. J. A. Kolmer.—p. 56.

Sjögren's Syndrome. H. T. Behrman and K. K. Lee.—p. 63.

Arteriosclerosis Obliterans as Cause of Ulcers of Leg. S. I. Shapiro and R. Nunland.—p. 80.

Parakeratosis Scutularis (Ostraeca). B. Solomons Jr.—p. 89.

Investigation of Fungi in Hanging Drop Cultures: Preliminary Report. A. A. Zimerinov and S. M. Rafalovich.—p. 94.

Archives of Internal Medicine, Chicago

84:845-1032 (Dec.) 1949

*Tussive Syncope: Observations on Disease Formerly Called Laryngeal Epilepsy, with Report of 2 Cases. W. S. McCann, R. A. Bruce, F. W. Lovejoy Jr. and others.—p. 845.

*Aureomycin Treatment of Pneumococcic Pneumonia: Clinical and Laboratory Studies on 33 Patients. T. M. Gocke, H. S. Collins and M. Finland.—p. 857.

*Aureomycin Therapy of Nonpneumococcic and Nontuberculous Bacterial Pulmonary Infections. H. S. Collins, T. M. Gocke and M. Finland.—p. 875.

Sternal Marrow in Patients with Metastatic Cancer. P. F. Lanier.—p. 891.

Motor Manifestations of Herpes Zoster: Report of Case of Associated Permanent Paralysis of Phrenic Nerve. S. L. Halpern and A. H. Covner.—p. 907.

Q Fever in Veterans' Hospital. R. W. Brawley and F. W. S. Modern.—p. 917.

Pathology of Subchronic Atrophy of Liver: Comparison with Laennec's Cirrhosis. M. Bjornsboe and F. Raaschou.—p. 933.

Anemia Associated with Cirrhosis of Liver: Study of 32 Cases. Keh-Wei Hoang and Herng-Wen Wang.—p. 958.

Development of Porphyria in Diabetes Mellitus: Report of 3 Cases. K. Sterling, M. Silver and H. T. Ricketts.—p. 965.

Multiple Myeloma with New Bone Formation. P. Krainin, C. J. D'Angio and A. Smelin.—p. 976.

Periarteritis Nodosa: Study of Chronicity and Recovery, with Report of 2 Cases. S. P. Klein.—p. 983.

Coronary Heart Disease and Xanthoma Tuberosum Associated with Hereditary Hyperlipemia: Study of 30 Affected Persons in Family. R. M. Alvord.—p. 1002.

Tussive Syncope or Laryngeal Epilepsy.—McCann and his associates cite a man aged 42, who experienced repeated episodes of syncope associated with coughing. The Valsalva maneuver abruptly altered the hemodynamics of the pulmonary circulation by virtue of the increased intrathoracic pressure, which resulted in impaired cardiac output and cerebral anoxia. On several occasions this procedure precipitated a convulsive seizure. Extraordinarily high pressures in the right ventricle and fluoroscopic evidence of the trapping of blood within the pulmonary circulation were also observed during paroxysms of coughing. The mechanism of these changes in pressure was believed to be identical with that of the Valsalva maneuver. In another patient attempts to demonstrate syncope following cough failed, but the body build, the exaggerated respiratory variation of pressures in the right ventricle, the increased residual air and the acute elevation of pressure in the right ventricle to 270 mm. with coughing were all features compatible with this syndrome. It was believed that observations during an acute paroxysm of coughing might confirm the diagnosis, as in the first case. A third patient could not be studied by cardiac catheterization. However, the association of syncopal attacks with coughing made possible the presumptive diagnosis of tussive syncope. The authors regard the term "tussive syncope" as more appropriate than "laryngeal epilepsy."

Aureomycin Treatment of Pneumococcic Pneumonia.—Gocke and his associates evaluated the therapeutic effectiveness of aureomycin in various types of pneumonia and other acute respiratory infections. Clinical and laboratory studies were made on 33 patients with pneumococcic pneumonia. The patients satisfied the following criteria: 1. The history and results of physical examination were consistent with a diagnosis of pneumococcic pneumonia. 2. All patients were acutely ill and febrile. 3. No previous treatment with antiserums, sulfonamide drugs or antibiotics had been given. 4. Blood and sputum were obtained for cultures, and pneumococci of specific types were isolated and identified from one or both of these sources. Most of the patients received the aureomycin by mouth in doses varying from 1 Gm. every four or six hours to 0.5 Gm. given at intervals of four, six or eight hours. The total oral dose ranged from 5.5 to 46.5 Gm. given over a period ranging from two to fifteen days. Most of the patients received less than 20 Gm. and were treated for five days or less. Parenteral therapy was used in 6 patients. Two of these died after only fourteen hours of treatment with aureomycin. There was a drop in temperature during the first two days after the administration of aureomycin was started in all 31 patients who recovered. There were only 8 patients in whom fever persisted or recurred after the second day. Improvement in the acute symptoms of pneumonia usually paralleled the drop in temperature. Clearing of the lungs was evident within six days after treatment was started in more than two thirds of the patients who recovered. Pneumococci were obtained from the pretreatment blood cultures in 11 patients, but only one of the blood cultures taken after treatment was positive. The bacteriologic observations with respect to the disappearance of pneumococci from the sputum appear to be even more impressive than the results of similar studies in patients treated with sulfonamide drugs or with penicillin. In the 4 surviving patients who were treated with daily intravenous injections of aureomycin, the effects on the acute disease and on the bacteriologic observations were similar to those observed in the patients who received larger and more frequent doses by mouth. The authors conclude that the clinical and laboratory data indicate clearly that aureomycin given either orally or intravenously is highly effective in the treatment of pneumococcic pneumonia.

Aureomycin in Nonpneumococcic and Nontuberculous Pulmonary Infections.—Collins and his co-workers studied 2 groups of cases. Group 1 included 13 patients with acute pneumonia in whom cultures of sputum yielded pathogenic bacteria other than pneumococci. Most of these patients had an antecedent illness which was consistent with the diagnosis of clinical influenza. Group 2 included 20 patients with infections that can be characterized as nontuberculous bronchopulmonary suppuration. Clinical results were good in the acute cases of group 1, in which only sensitive bacterial strains appeared to be involved. In the cases of group 2, the benefit derived from aureomycin appeared to depend largely on the offending organisms, their susceptibility to aureomycin and the character of the pulmonary lesions. The best effects were observed in cases in which aureomycin-susceptible organisms were primarily concerned. In patients in whom relatively resistant organisms appeared in predominant numbers, in whom there were extensive suppurative lesions that were not draining adequately or in whom there were more serious underlying lesions, the effects of aureomycin therapy were slight or equivocal. Benefit may be expected from aureomycin in a considerable proportion of cases of nontuberculous bronchopulmonary suppuration after other antimicrobial agents, particularly sulfonamide drugs, penicillin and streptomycin, either have failed completely or have given only partial or slight relief. The failure of organisms to develop resistance to aureomycin during treatment is an important feature in protracted infections. The presence of other unhealed lesions or the improper drainage or absorption of suppurative foci, however, predispose to additional infections with insensitive organisms during treatment with aureomycin, just as they do during penicillin therapy. Although chloramphenicol failed to bring about any additional improvement in the 4 cases of this group in which it was used after the aureomycin, no conclusions are justified concerning its effectiveness if it were to be used to initiate therapy in similar cases.

Archives of Neurology and Psychiatry, Chicago

62:701-884 (Dec.) 1949

Frontal Lobotomy and Electrical Stimulation of Orbital Surface of Frontal Lobes: Effect on Respiration and on Blood Pressure in Man. W. P. Chapman, R. B. Livingston and K. E. Livingston. —p. 701.
Extinction Phenomenon in Hemiplegia. M. B. Bender, M. F. Shapiro and A. W. Shappell.—p. 717.
Use of Language in Dreams in Analysis of Aphasic Deficits. H. Goldhamer.—p. 725.
Psychiatric Aspects of Vagotomy: IV. Phantom Ulcer Pain. T. S. Szasz.—p. 728.
Projection of Dermatomes on Substantia Gelatinosa. J. Szentágothai and T. Kiss.—p. 734.
Congenital Myasthenia in Siblings. P. M. Levin.—p. 745.
Prognosis in Japanese B. Encephalitis. C. D. Aring.—p. 759.
Patterns of Increased Electrical Skin Resistance in Acute Human Poliomyelitis. F. M. Brown and S. R. Bruesch.—p. 766.
*Arteriovenous Fistula (Aneurysm) of Great Cerebral Vein (of Galen) and Circle of Willis: Report on 2 Patients Treated by Ligation. E. Boldrey and E. R. Miller.—p. 778.
Longevity in Multiple Sclerosis. D. Sciarra and S. Carter.—p. 784.
Quantitative Visual Index to Memory Impairment: Preliminary Report. E. Freeman and W. E. Josey.—p. 794.
Palatal Myoclonus and Primary Nystagmus Following Trauma: Report of Case. M. B. Jacobson and W. F. Gorman.—p. 798.
*Guillain-Barré Syndrome Complicating Antirabies Inoculation. H. D. McIntyre and H. Krouse.—p. 802.
Blood Chemistry of Schizophrenic Patients Before, During and After Insulin Shock Therapy: Preliminary Studies. S. P. Gottfried and H. H. Willner.—p. 809.
Arteriographic Study of Effect of Drugs on Intracranial Vessels in Patients with Chronic Headache: Preliminary Report. A. P. Friedman, E. Feiring, L. M. Davidoff and H. H. Merritt.—p. 818.
*Neurofibromatosis (Von Recklinghausen's Disease of Nervous System): Analysis of Total Pathologic Picture. B. W. Lichtenstein.—p. 822.
Agenesis of Corpus Callosum: Electroencephalographic Study. J. G. Chusid, C. G. de Gutiérrez-Mahoney and J. S. Chaffee.—p. 840.
Spinal Subarachnoid Implantation Associated with Ependymoma. H. J. Svien, E. M. Gates and J. W. Kernohan.—p. 847.
Anticonvulsant Activities of Certain Thiazolidones and Hydantoins as Determined by Electric Shock Procedures in Cats, Rats and Mice. C. R. Ensor and G. Chen.—p. 857.

Arteriovenous Fistula of the Great Cerebral Vein and the Circle of Willis.—Boldrey and Miller say that arteriovenous fistula or aneurysm connecting the great cerebral vein of Galen and the circle of Willis is apparently rare, only 6 examples having been described. They report the condition in 2 living patients. The first case concerned a child who was first examined at the age of 16 months because of enlargement of the head. The veins of the face and scalp were dilated. A loud bruit could be heard over the head. A pulsating mass was palpable behind the right mastoid region. This was removed, without effect on either the bruit or the vascular engorgement. Two months later there were symptoms suggesting a subarachnoid hemorrhage. The patient was watched for three and a half months. At the end of this time an angiogram of the right carotid artery showed a tremendous bulbous aneurysm of the great cerebral vein of Galen. Ligation of the right common carotid artery was performed two days later, followed in two weeks by ligation of the right internal and external carotid arteries. The papilledema disappeared after this ligation and the engorgement of the veins of the scalp was decreased. The bruit was unaltered. With the constant threat of another hemorrhage, the posterior communicating and posterior cerebral artery were exposed on the right side, and the latter was clipped with four tantalum clips just distal to the connection from the basilar artery. The bruit disappeared immediately. The development of the boy has been normal in the three years which have elapsed since this treatment. In the second patient the bruit diminished and the engorgement disappeared following ligation of the right internal and external carotid arteries. An attempt was made to expose the posterior cerebral artery but was abandoned because of intervening dilated and pulsating venous channels. This patient has been followed for two years. The authors believe that with greater attention to angiography this type of anomaly may be found more often than is currently apparent. Vascular engorgement of vessels of the scalp in the presence of a pronounced and persisting bruit is sufficient justification for cerebral angiography. If the lesion is approached sufficiently early, there appears to be hope for the successful interruption of the anomaly.

Guillain-Barré Syndrome Complicating Antirabies Inoculation.—McIntyre and Krouse report 4 patients in whom polyneuritis developed following antirabies vaccination. Two patients had polyneuritis with facial diplegia; 1 had bilateral weakness of the lower facial muscles, although movements of the occipitofrontalis muscles were normal, and 1 did not present facial weakness. Patients 1, 2 and possibly 3, fulfil the requirements for the diagnosis of the Guillain-Barré syndrome. Patients 1 and 2 cast doubt on a specific cause of the Guillain-Barré syndrome, the symptom complex having been observed in polyneuritides of various origins. The mechanism of facial diplegia may be mechanical, the paralysis developing when the facial nerves swell for any reason, since the bony facial canal has narrow limits for any increase in bulk of the nerve in its course through the canal

Neurofibromatosis: Pathologic Picture.—Lichtenstein describes several uncommon morbid anatomic features of neurofibromatosis (von Recklinghausen's disease of the nervous system) and presents a schema to serve as a guide to the understanding of the total pathologic picture and the analysis of future material. The basic lesions are multiple foci of hyperplasia and neoplasia of the supportive or protective derivatives of the ectoderm. The neuroglia, myelin, meninges, capsule cells and connective tissue of the cerebrospinal ganglions, the supportive tissue of the nerves and the protective and supportive tissue of the epidermis participate in the disease process. The basic tissue is not exclusively of neural crest origin or of connective tissue origin, as would be indicated by certain discussions in the literature. To the protective and supportive elements is frequently added a vascular component, which may occur as independent vascular lesions or as vascularized supportive lesions. Hyperplasia and tumor formation of parenchymatous elements occur rarely and are chiefly in the form of chromaffin tumors of the adrenal glands and hyperplastic nerve bundles (neuromatosis). Neurofibromatosis is related to the other neurocutaneous disorders.

Archives of Otolaryngology, Chicago

50:687-854 (Dec.) 1949

Active Immunization Against Secondary Bacterial Infections of Common Cold: I. Acquired Immunity in Mice Following Oral and Intra-Abdominal Administration of Stock Polyvalent Bacterial Vaccines. J. A. Kolmer.—p. 687.
*Id.: II. Production of Protective Antibodies in Human Adults by Oral Administration of Stock Polyvalent Bacterial Vaccines. J. A. Kolmer, A. Bondi Jr. and C. Schillinger.—p. 693.
Sulfamylon® and Streptomycin in Treatment of Infections of Ear: Preliminary Report. K. L. Diehl and A. G. Morris.—p. 700.
Prevention of Motion Sickness by Intravenous Injection of Sodium Bicarbonate. T. Hasegawa.—p. 708.
Penicillin in Chronic Otitis Media. W. J. Aagesen.—p. 716.
Management of Acute Laryngotracheobronchitis. J. R. Simpson. —p. 724.
Modern Management of Oroantral Fistula. R. T. Barton.—p. 732.
Structure and Performance in Animal Language. G. Kelemen.—p. 740.
*Allergy as Cause of Nuchal Myalgia and Associated Headache. T. G. Randolph.—p. 745.
Problem of So-Called Congenital Atresia of Ear: Histologic Report of New Case. F. Altmann.—p. 759.
Glossopharyngeal Neuralgia: Tic Douloureux of Ninth Cranial Nerve. P. N. Pastore and J. M. Meredith.—p. 789.
Intranasal Surgery of Maxillary Sinus. H. M. Goodyear.—p. 795.
Ozena: Evaluation of Surgical Treatment. M. S. Ermer and M. H. Alexander.—p. 805.
Treatment of Allergic and Vasomotor Rhinitis with Hesperidin Chalcone Sodium. B. W. Saylor.—p. 813.
Modified Technic of Plastic Procedure in Radical Mastoidectomy: Report of Results in Case of Circumscribed Labyrinthitis and Perisphlebitis of Lateral Sinus in Course of Chronic Purulent Otitis Media with Cholesteatoma. W. Dworetzky.—p. 821.

Immunization Against Secondary Infections of the Common Cold.—Kolmer and associates administered orally to 116 adults enteric-coated tablets of stock polyvalent vaccines prepared of the desiccated bacteria and their soluble products commonly involved in the production of the secondary bacterial infections of the common cold. Placebo tablets were administered to 35 adults as controls. After administration of the tablets mouse protection tests were conducted with the serums of both groups for antibodies against hemolytic streptococci, type I pneumococci and Klebsiella pneumoniae. The placebo tablets did not produce protective antibodies against any of the three challenging organisms. The oral administration of tablets of the bacterial vaccines produced protective antibodies against hemolytic streptococci in 19.8 per cent, against type I pneumococci in 25 per cent and against K. pneumoniae in 19.8 per cent of the 116 adults when the serums were tested against 2 minimum lethal doses of the respective organisms. The serums of some

adults were found to contain natural protective antibodies against the three challenging organisms. These natural antibodies plus those produced by the vaccines accounted for the combined antibodies against hemolytic streptococci in approximately 31 per cent, against type I pneumococci in approximately 33.6 per cent and against K. pneumoniae in approximately 36.2 per cent of the 116 adults. It appears that the oral administration of tablets prepared of desiccated organisms and their soluble products may produce protective antibodies against hemolytic streptococci, type I pneumococci and K. pneumoniae in a statistically significant number of adults.

Allergy as Cause of Nuchal Myalgia.—Randolph says that myalgia of the posterior cervical muscles has been considered in the past under a profusion of descriptive terms. He cites 5 patients to illustrate the relation of posterior cervical myalgia to headache as an expression of an allergic reaction. Specific inhalants (house dust) and foods were incriminated as causative agents. No support could be demonstrated for the theory that such clinical symptoms are manifestations of "nervousness" or psychosomatic disturbances. The term "tension headache" is a misnomer. Involvement of the neck muscles is the most frequently encountered manifestation of allergy affecting the skeletal musculature, although the process may localize in various other muscles or give rise to more generalized muscular symptoms. Pulling, drawing, tightness and aching of the cervical muscles are some of the most usually encountered symptoms observed in the course of performing individual food tests for the specific diagnosis of food allergy. Technicians are trained to observe whether the patient stretches his neck, as if his collar were too tight, as telltale evidence of the onset of such nuchal symptoms. Simultaneously with extension and flexion of the neck and rotation of the head on the shoulders, patients generally start to massage the nape of the neck. Such nuchal symptoms are usually associated with tenderness of the involved muscles; they may or may not develop into headache. The fact that these muscular symptoms may be reproduced repeatedly and at will in experimental circumstances and that such complaints may be relieved by avoidance of incriminated allergens are the basis of the thesis that such manifestations are of allergic origin.

Archives of Pathology, Chicago

69:1-110 (Jan.) 1950

*Acute Esophagitis in Infants. P. Gruenwald and M. B. Marsh.—p. 1.
Pathology of Experimental Immersion Foot. N. B. Friedman, K. Lange and D. Weiner.—p. 21.
Healing Incomplete Spontaneous Rupture of Aorta. B. Fisher and J. A. Salmons.—p. 27.
Central Necrosis of Liver. H. F. Wallach and H. Popper.—p. 33.
*Glomerulonephrosis: Morphologic Manifestation of Renal Cortical Ischemia in Toxic Oliguria and Lower Nephron Nephrosis. A. J. French.—p. 43.
Congenital Glycogenic Tumors of Heart. L. A. Kidder.—p. 55.
Diffuse Granulomatous Aortitis with Giant Cells: Associated with Partial Rupture and Dissection of Aorta. G. C. McMillan.—p. 63.
Adenomatoid Changes of Renal Glomerular Capsular Epithelium Associated with Adrenal Tumor. R. H. Chappell and J. R. Phillips.—p. 70.
Choriocarcinoma: General Review, with Analysis of 516 Cases. W. W. Park and J. C. Lees.—p. 73.

Acute Esophagitis in Infants.—The studies on esophagitis in infancy presented by Gruenwald and Marsh are based on 52 cases detected in a series of 310 autopsies. The authors divide their patients into 2 groups obtained during successive periods. The esophagus was opened and inspected in all cases; in many cases in the old series sections were not taken for microscopic examination. In the new series the esophagus was examined more carefully, both grossly and microscopically, and the incidence of esophagitis was higher. Often the tentative diagnosis of esophagitis could be made at autopsy when the mucosa was greatly hyperemic and showed ulcers or had a dull sheen. Microscopic examination confirmed the diagnosis and also led to the discovery of additional cases. During the period in which the new series of cases was collected, a cross section at the level of the larynx and a longitudinal section of the cardia and adjoining portion of the esophagus were taken at all autopsies on infants; additional sections were made of areas suspected to be inflamed. Thirty-three of the 52 infants with esophagitis died during the neonatal period, that is, during the first two weeks of life, and 13 of these 33 were considered premature. However, prematurity cannot be considered a causal factor of esophagitis, because a comparable series of neonatal infants dying without esophagitis contains a larger percentage of premature infants. The authors believe that the significance of esophagitis for the clinical course of the infant ranges from an unimportant accidental observation to the principal cause of death. Various possible causes are considered, and no single factor is found which might explain all cases. It is suggested that in many of the present cases esophagitis was a "shock lesion." In the neonatal group of patients shock may have been the result of various types of birth trauma, including asphyxia. Micro-organisms were demonstrated in tissue sections in half the cases. They were of different types and are believed to have been secondary invaders. Vomiting and hemorrhage occurred frequently in the patients with esophagitis; perforation into the right pleural cavity was encountered twice. An effort should be made to diagnose esophagitis in living patients not only because the lesion, if severe, should be treated but because it may be an indication of shock, which is difficult to recognize in infants.

Glomerulonephrosis; Cortical Ischemia in Toxic Oliguria and Lower Nephron Nephrosis.—French says that the minimal morphologic changes in the renal tubular epithelium in cases of so-called lower nephron nephrosis have not been considered sufficient to explain the oliguria or anuria accompanying this syndrome. Bell has emphasized the concept of glomerulonephrosis, as descriptive of the glomerular change in cases of eclampsia. French found similar glomerular changes in many cases of lower nephron nephrosis and verified their occurrence in 10 of 11 cases of eclampsia. It appeared to be essential to the explanation of oliguria and anuria in cases of lower nephron nephrosis that a glomerular lesion be demonstrated, since tubular change alone in the presence of normal renal blood flow and glomerular filtration rate would be associated with polyuria rather than with a reduction of urinary output. The author made a histologic study of the kidneys of 20 patients. This group did not include the patients with eclampsia to whom reference has been made. Both clinical and necropsy records were reviewed in an effort to exclude all who might have had primary or secondary renal disease from causes other than those which are considered provocative of the lower nephron syndrome. These studies show glomerulonephrosis to be the glomerular manifestation of renal ischemia in toxic oliguria or anuria and the so-called lower nephron nephrosis. This renal change is of common occurrence and is found in varying degrees of severity. Protein casts and gray staining with the hematoxylin and eosin method are significant morphologic observations. The state of the liver is related to this renal condition, and it is suggested that the hyperglobulinosis present in advanced hepatic disease may be a contributing factor. The reversibility of the changes that occur in the glomeruli and tubules in glomerulonephrosis is attested to by the possibility that some patients may recover from eclampsia as well as from toxic oliguria or anuria.

Arizona Medicine, Phoenix

6:1-76 (Dec.) 1949

Treatment of Headache with Cafergone. M. J. Whitelaw.—p. 15.
Cutaneous Manifestations of Internal Disorders. N. Kirsch.—p. 17.
Recent Advances in Treatment of Common Skin Diseases. H. T. Behrman.—p. 22.
Traumatic Diaphragmatic Hernia. D. W. Melick, J. M. Sobol and C. Armbruster.—p. 28.

Canadian Journal Public Health, Toronto

40:447-482 (Nov.) 1949. Partial Index

Influenza in Canada During 1949: Including Studies on Eskimos. C. E. van Rooyen, L. McClelland and E. K. Campbell.—p. 447.
*Influenza Virus Epidemic at Victoria Island, N.W.T., Canada. F. P. Nagler, C. E. van Rooyen and J. H. Sturdy.—p. 457.
Nomenclature and Interpretation of Results of Serologic Tests for Syphilis. E. L. Barton and W. G. Brown.—p. 466.

Influenza Epidemic Among Eskimos.—Nagler and his associates in reporting on an influenza epidemic that occurred among Eskimos in April 1949, state that the Eskimo population of the southern regions of Victoria Island, of Finlayson Island, Taylor Island, Admiralty Island and the northern parts of the

Kent Peninsula consisted at the time of the epidemic of about 90 persons, all of whom became infected (attack rate: 100 per cent). Eighty-four natives became severely ill, and 6 showed only mild symptoms of the disease. Eighteen Eskimos died in this epidemic (mortality rate: 20 per cent), 16 of them before treatment could be given. All age groups were affected, and deaths appeared to be fairly evenly distributed among persons between 6 months and 70 years of age. The authors describe the contacts between the several groups of Eskimos that caused the spread of the epidemic. There was an epidemic of a similar nature at Aklavik in 1946. A few Eskimos and some members of their families who were ill at this time had come in contact with the present outbreak at Cambridge Bay and escaped with mild symptoms. The white population of Cambridge Bay consisted of about 50 men between the ages of 21 and 35 years. Although most of them had been in close contact with the native population, only 3 became ill with headaches and sore throats. Influenza virus type A was isolated from all throat washings of the Eskimo patients. Convalescent serums of these patients contained a high titer of antibodies against the influenza virus strains FM 1 and PR 8. Influenza virus type A was isolated from the lung, liver, spleen and heart blood of 1 patient who died and the lung and bronchus of a second fatality.

Connecticut State Medical Journal, Hartford

13:1117-1204 (Dec.) 1949

New Freedom of Choice in Anesthetic Agents. H. R. Griffith.—p. 1119.
Abdomino-Thoracic Approach in Treatment of Lesions of Upper Stomach and Lower Esophagus—Case Report. V. J. Vinci and H. S. Frank.—p. 1122.
Ringworm of Scalp: Successful Treatment of 7 Institutional Cases by Manual Epilation and Salicylanilide Ointment. C. N. Sullivan.—p. 1125.
Reticulo-Endotheliosis or Stem-Cell Leukemia—Case Report. T. S. Evans, A. P. Cipriano and E. H. Ferrell Jr.—p. 1128.
Medical Services for Small Industrial Companies. R. F. Buchan and R. P. Knapp.—p. 1133.
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Relationship of General Practitioner to Hospital Staff. P. A. Davis.—p. 1137.

Delaware State Medical Journal, Wilmington

22:247-264 (Nov.) 1949

Undesirable Habits in Children: Diagnostic Elements and Interpretation; Management. A. Gordon.—p. 247.
Contact Dermatitis. E. R. Gross.—p. 250.
Severe Contact Dermatitis of Face Due to Nasal Inhalation of Penicillin Powder; Report of Case. L. Katzenstein.—p. 253.
Aiding TB Research. G. T. Evans.—p. 254.

Gastroenterology, Baltimore

13:275-390 (Oct.) 1949

Method of Improving Function of Bowel: Use of Methylcellulose. J. A. Bargen.—p. 275.
Hidden Gastroduodenal Lesions. R. P. Reynolds and M. O. Cantor.—p. 280.
The Pancreas: Contributions of Clinical Interest Made in 1948. d. Elman and H. R. Butcher.—p. 285.
*Thephorin (Phenindamine) in Treatment of Gastrointestinal Allergy. E. M. Schloss.—p. 311.
Gastritis in the Dyspeptic. P. G. Keil.—p. 319.
Modified Mann-Williamson Operation for Endoscopic Observations of Ulcer Bearing Areas. J. I. Perl.—p. 322.
Antigenic Properties of Enterogastrone Preparation. E. P. Benditt and D. A. Rowley.—p. 326.
Failure of Enterogastrone Preparation to Inhibit Gastric Secretion and Prevent Rumenal Ulcers in Rat. E. P. Benditt, J. B. Kirsner and D. Rowley.—p. 330.
Interpretation of Histamine and Insulin Tests of Gastric Function. J. N. Hunt.—p. 336.
*Gastric Hyperchlorhydria with Three Primary Jejunal Ulcers and Hypoproteinemia: Report of Case Relieved by Total Gastrectomy After Subtotal Gastric Resection Had Proved Inadequate. T. E. Machella, J. E. Rhoads and R. E. Hobler.—p. 357.

Thephorin* (Phenindamine) in Treatment of Food Allergy.—Schloss employed thephorin* (phenindamine), an antihistaminic preparation and a pyridindene derivative. Investigations of its toxicity indicate that it is less apt to produce untoward manifestations than diphenhydramine (benadryl*) and tripelennamine (pyribenzamine*). Such effects as do occur are generally stimulating in character (insomnia, apprehensiveness) and may be controlled by small doses of phenobarbital. The efficacy of thephorin* in the symptomatic treatment of gastrointestinal food allergy was studied in 41 patients exhibiting a total of 126 complaints referable to the digestive tract. Complete relief was obtained in 69 symptoms and partial relief in 26 more; thus, relief or amelioration was obtained in 75 per cent of complaints. Most of the 41 patients had multiple complaints; 26 (nearly two thirds) obtained complete relief. As in the employment of antihistaminics for other forms of allergy, such therapy is symptomatic and not curative. Thephorin* appears to be of value in (1) symptom control during the procedure of specific desensitization, with which it does not seem to interfere, (2) in palliation of symptoms in cases in which desensitization is impracticable and (3) in the crude delineation of gastrointestinal allergy in patients who have no discoverable evidence of organic digestive disease and in whom differentiation of symptoms from those caused by functional and neuropsychiatric factors is indicated. It is possible that the combination of antihistaminic and anticholinergic effects of thephorin,* was responsible as evidenced in animal studies for the efficacy in relieving symptoms observed in this series.

Gastric Hyperchlorhydria with Three Primary Jejunal Ulcers.—Machella and his associates report a man, aged 42, with a history of indigestion of three years' duration. He experienced gnawing pain above the umbilicus one to two hours after meals and occasionally at 2 a.m. The pain was relieved by food or alkali. Roentgen examination disclosed a constricted and scarred duodenal cap. Gastric analysis after a test meal revealed values for free hydrochloric acid varying from 106 to 130, and for total acid 124 to 147 clinical units. He became free of distress and gained weight after being placed on an ulcer regimen. The pain returned when the patient discontinued the dietary program. The serum proteins were found to be low. After a period of intensive oral and parenteral protein administration, he was scheduled for exploratory laparotomy. During the early hours of the morning on which the operation was planned, acute abdominal symptoms developed. The laparotomy revealed free fluid in the peritoneal cavity and three separate perforated ulcers in the first loop of the jejunum. The perforations were closed, after biopsy specimens had been taken. The patient recovered but began to vomit after a brief period of well-being. Hypoproteinemia persisted. After a period of intensive preparation, he was subjected to a subtotal gastric resection and to a subdiaphragmatic vagotomy. The gastric acidity was not reduced sufficiently by these operations or by a subsequent transthoracic vagotomy to prevent secondary jejunal peptic ulceration. Good health was eventually restored by a total gastrectomy.

Journal of Clinical Investigation, Cincinnati

29:1247-1386 (Nov.) (Part I) 1949

SYMPOSIUM ON RADIOACTIVE ISOTOPES

Production and Availability of Radioisotopes. P. C. Aebersold.—p. 1247.
Use of Stable Isotopes in Biological and Medical Research. I. M. London.—p. 1255.
Dosage Determination in Use of Radioactive Isotopes. L. D. Marinelli.—p. 1271.
*Personnel Protection in Use of Radioactive Isotopes. G. Failla.—p. 1281.
Biological Hazards and Toxicity of Radioactive Isotopes. A. M. Brues.—p. 1286.
Equations for Tracer Experiments. A. K. Solomon.—p. 1297.
Therapeutic Application of Radioactive Phosphorus with Special Reference to Treatment of Primary Polycythemia and Chronic Myeloid Leukemia. H. L. Friedell and J. P. Storaasli.—p. 1308.
Radioactive Phosphorus in Studies on Metabolism of Normal and Neoplastic Tissues. A. Marshak.—p. 1324.
Use of Radioactive Iodine in Studying Pathologic Physiology of Thyroid Disease. R. W. Rawson.—p. 1330.
Use of Radioiodine in Physiological and Clinical Studies on Thyroid Gland. M. S. Rahn and E. B. Astwood.—p. 1347.
Radioiodine Therapy in Graves' Disease: Review. M. H. Soley and N. Foreman.—p. 1367.
Uptake and Elimination of Krypton and Other Inert Gases by Human Body. C. A. Tobias, H. B. Jones, J. H. Lawrence and J. G. Hamilton.—p. 1375.

Personnel Protection in the Use of Radioactive Isotopes.—Failla says that the mental attitude of the worker plays an extremely important part in protection in the use of radioactive isotopes. Most persons who have received some instruction are careful at the start. Sooner or later a minor "emergency" arises and the worker goes through the necessary manipulations without using the protective devices. He may

be a little apprehensive, but unless the exposure was really excessive he cannot detect ill effects; after a few such experiences he may conclude that the danger of overexposure has been exaggerated. Every worker must be made to realize that radiation injury may not become apparent for many years. This is true even in the case of a single exposure or a few exposures taking place within a few weeks. It should be a rule never to venture into a potentially dangerous region without first surveying it with the proper kind of measuring instrument. Temporary protective barriers are built up with lead bricks. Sometimes a single barrier is placed between the source and the area to be protected. This may or may not be sufficient. The lead thickness may be ample for radiation passing through it, but radiation emitted in other directions will strike walls and will be scattered all over the room. In making a survey for scattered radiation from a source not completely surrounded by lead, all space in the vicinity of a strong source should be surveyed. Isotopes emitting gamma rays are more dangerous to handle than pure beta emitters. Only the superficial tissues of the body (to a depth of at most several millimeters) are irradiated by beta rays, whereas the entire body is traversed by gamma rays. Most university or hospital laboratories handle rather small quantities of radioactive isotopes and exercise reasonable care in storing these materials. Most of the exposure occurs in performing at close range some manipulative procedure which exposes the hands to high intensities of radiation that may lead later to cancer. The author evaluates dosage rates for various radioactive sources and emphasizes the importance of protection in the handling of radioactive phosphorus (P^{32}) in hospital laboratories, where familiarity with the handling of filtered radium might well lead to overexposure of the hands. One who has handled radium applicators for years might not realize that the skin of the hand would get much more radiation from P^{32} sources of equal millicurie content.

Journal of Infectious Diseases, Chicago

85:205-308 (Nov.-Dec.) 1949. Partial Index

Evaluation of Antimalarials with Plasmodium Lophurae in Chick. J. Reilly, G. Chen and E. M. K. Geiling.—p. 205.
*Studies of Brucellosis in Utah. H. G. Stoenner, A. A. Jenkins and E. H. Bramhall.—p. 213.
Attempt to Confirm an "In Vitro Cultivation of Rat Leprosy Organism." J. H. Hanks and M. F. Seule.—p. 225.
Inclusion Bodies from Diseases of Undetermined Etiology and from Apparently Healthy Animals as Seen Unstained with Phase Microscope. J. J. Angulo.—p. 243.
Active Immunization of Mice with Ultraviolet-Inactivated Lymphocytic Choriomeningitis Virus Vaccine and Results of Immune Serum Therapy. A. Mitaer and S. O. Levinson.—p. 251.
Morphologic Observations by Electron Microscopy of Hamster-Adapted and Mouse-Adapted Newcastle Virus After Culture in Chick Embryos. R. L. Reagan, J. W. Hickman, M. G. Lillie and A. L. Brueckner.—p. 256.
Induced Latent Infection and Resultant Active Immunity to M M Mouse Encephalomyelitis Virus in Mice Suckled by Immune Foster Mothers. J. E. Gordon and F. J. Curley.—p. 259.
Induced Modifications in Antigenic Reactivity of Pneumococcus. B. Laros.—p. 263.
Increased Mortality Following Penicillin Therapy of Chick Embryos Infected with Candida Albicans Var. Stellatoidea. G. E. Foley and W. D. Winter Jr.—p. 268.
Viruses of Lymphogranuloma-Psittacosis Group Isolated from Opossums in Colombia Opossum Virus. A. M. Roca-Garcia.—p. 275.
Effect of Alpha-Tocopherol on Mucin Enhancement of Bacterial Invasiveness. S. S. Elberg and D. Gale.—p. 304.

Brucellosis in Utah.—According to Stoenner and associates the incidence of brucellosis in man varies in different sections of the country depending on the type of animal industry pursued. From 1930 to 1943 the annual rate per 100,000 population in the major swine-raising and cattle-raising areas was 3.76 and 3.34, respectively, while in the mountain states where the animal industry consists chiefly of cattle and sheep the annual rate was 1.99 per 100,000 population. The authors summarize the results of agglutination tests for brucellosis on 25,294 serum samples forwarded to the Division of Laboratories, Utah State Department of Health, for routine serologic tests for syphilis. This number represents a sampling of approximately 4 per cent of the population of the state. A questionnaire was forwarded to the physician submitting a positive sample to obtain an epidemiologic history from the patient. It consisted of queries as to occupation, environment, use of raw or pasteurized dairy products, animal contact or contact with carcasses or meat of farm animals, history of a previous diagnosis of brucellosis and history of previous symptoms of brucellosis. The incidence of agglutinins for Brucella abortus was 2.28 per cent in the 25,294 persons examined. The incidence was somewhat higher in males than in females (2.48 and 2.13 per cent, respectively). Children presented the lowest incidence of agglutinins. It was possible to demonstrate the effect of animal contact and the use of raw milk on serum titers. Of 323 persons with positive titers 43.5 per cent of the males and 34.3 per cent of the females gave a history of symptoms suggestive of brucellosis. The actual number of cases occurring annually is estimated to be twenty-six times the number reported. The incidence of agglutinins in man is correlated with the amount of infection in cattle. Epidemiologic investigations suggest that Br. abortus is the chief cause of human brucellosis in Utah.

Journal of Lab. and Clinical Medicine, St. Louis

34:1473-1622 (Nov.) 1949

*Significance of Cholesterol Variations in Human Blood Serum. L. M. Morrison, W. T. Gonzales and L. Hall.—p. 1473.
Iron Metabolism: Erythrocyte Iron Turnover. C. A. Finch, J. A. Wolff, C. E. Rath and R. G. Fluharty.—p. 1480.
Tyrosine Metabolism in Human Scurvy. W. E. Rogers and F. H. Gardner.—p. 1491.
Observations on Etiologic Relationship of Achylia Gastrica to Pernicious Anemia: XI. Hematopoietic Activity in Pernicious Anemia of Beef Muscle Extract Containing Food (Extrinsic) Factor upon Intravenous Injection Without Contact with Gastric (Intrinsic) Factor. F. H. Gardner, J. W. Harris, R. F. Schilling and W. B. Castle.—p. 1502.
Further Observations on Use of Urinary Pigment-Creatinine Ratio for Measurement of Basal Metabolic Rate. J. J. Vorzimer and I. B. Cohen.—p. 1512.
Effect of Retained Bronchial Lipiodol on Blood Iodine. L. Hyde and B. Hyde.—p. 1516.
Effect of Thyroid Secretory Activity on Distribution of Radioiodine in Plasma. A. M. Potts, R. A. Shipley, J. P. Storaasli and H. L. Friedell.—p. 1520.
Inhibition of Growth of Staphylococcus Aureus by Human Semen. R. Rozansky, J. Gurevitch, A. Brzezinsky and B. Eckerling.—p. 1526.
Observations on Use of New Analgesic, NU-2206 (3-Hydroxy-N-Methylmorphinan Hydrobromide). L. L. Zager, W. W. Sawtelle, E. G. Gross and others.—p. 1530.
Effect of Spleen Protection on Mortality Following X-Irradiation. L. O. Jacobson, E. K. Marks, M. J. Robson and others.—p. 1538.
Observations on Mechanisms of Edema Formation in Lungs. R. Paine, H. R. Butcher, F. A. Howard and J. R. Smith.—p. 1544.

Cholesterol Variations in Human Blood Serum.—Morrison and his associates used a modification of the Sperry-Schoenheimer method as developed by Chaney and Lovell. This modification was checked against the original Sperry-Schoenheimer method and also against other procedures in use. The results emphasize the need for adhering to the fundamental principles of the Sperry-Schoenheimer procedure. The modification of Chaney and Lovell appreciably curtails the time required for the procedure and reduces the complexities of the original method while maintaining its accuracy. The need for standardization and perfection of such technic has been even more emphasized by the recent renewal of interest in and investigations into the role of fat metabolism in the production of arteriosclerosis and in particular of coronary thrombosis. Recent studies suggest that serum cholesterol levels are subject to variations under certain conditions in the same subject at different times. The authors investigated these circumstances of variation. Two or more fasting serum cholesterol tests were made at intervals in 161 subjects who were classified in four groups. In a series of 32 normal subjects the constancy of blood serum cholesterol levels was reaffirmed over prolonged test periods using a modification of the Sperry-Schoenheimer serum cholesterol procedure. Wide variations in serum cholesterol values were found in a group of 31 patients with miscellaneous diseases. Decided fluctuations in serum cholesterol values were observed in a series of 50 patients who had recently experienced a coronary artery thrombosis. Analogous wide fluctuations in serum cholesterol values were found in a series of 48 patients who had recently experienced a coronary artery thrombosis and ingested 6 Gm. of choline daily. These fluctuations rendered it impracticable to determine whether choline effected a reduction or increase in serum cholesterol levels. It is sug-

gested that variations or instability in serum cholesterol exceeding 15 per cent when determined by the Sperry-Schoenheimer procedure (or a proved modification thereof) in a person presumed to be normal may possibly indicate a systemic disorder or latent illness. It is suggested that should the Sperry-Schoenheimer procedure or a proved modification thereof show abnormal variations in serum cholesterol values, these may be due to a disturbance in the function of the liver-regulating cholesterol metabolism.

Journal-Lancet, Minneapolis

69:415-452 (Dec.) 1949

Study of 258 Cases of Appendicitis Based on Pathological Findings. H. B. Wightman.—p. 415.
Acute Pancreatitis. F. W. Quattlebaum.—p. 418.
Ankle Protection: Study of Methods Used in Athletics. H. R. McPhee.—p. 426.
Results of Reducing Diets for Overweight University Students. R. L. Todd and D. P. Siemers.—p. 429.
*Postpartum Optic Neuritis Due to Multiple Sclerosis. H. W. Hawn. —p. 431.
New Vaginal Speculum. J. E. Bierk.—p. 433.
Interstitial Pregnancy. J. H. Moore and F. A. Hill.—p. 435.
Use of Iodine in Solusalve Base as Antiseptic. I. Kass.—p. 436.

Postpartum Optic Neuritis and Multiple Sclerosis.—Hawn says that according to some observers optic neuritis is found in 50 per cent of all cases of multiple sclerosis at some stage of the disease. Multiple sclerosis is occasionally first manifested after a normal pregnancy, but pregnancy and some of the other predisposing factors merely activate what was previously a latent or subclinical form of multiple sclerosis. In these women the first symptom of the disease often is a sudden onset of blurred vision occurring several months after delivery. The course of the disease and its response to treatment is no different in these cases than in those not associated with pregnancy. During the past two years the author has followed 5 patients in whom signs and symptoms of multiple sclerosis developed after pregnancy. The histories of 2 of these patients show that pregnancy can initiate an attack of optic neuritis in women who previously had no stigma of multiple sclerosis or who had been free of symptoms for a number of years prior to pregnancy and delivery. The questions arise whether a woman who has proved multiple sclerosis should become pregnant and whether interruption of pregnancy is indicated in such women. The author mentions his observations and opinions of other investigators. He agrees with Fleck, who divides the women in the child-bearing age who have multiple sclerosis into two groups. In the group in which there is no progression of the symptoms and little or no disturbance of function or psychic disturbance, he does not advocate either sterilization or interruption of pregnancy. In the second group, in which there is gross disturbance of physical and psychic capacity, he believes that pregnancy should be interrupted and sterilization performed.

Journal of Nat. Cancer Inst., Washington, D. C.

10:225-564 (Oct.) 1949

Recent Developments in Transparent-Chamber Technique as Adapted to Mouse. G. H. Algire and F. Y. Legallais.—p. 225.
Development of Adenocarcinoma of Breast in Wistar Rat Following Gastric Instillation of Methylcholanthrene. H. Shay, E. A. Aegerter, M. Gruenstein and S. A. Komarov.—p. 255.
Preliminary Studies of Effectiveness of Local Irradiation in Induction of Lymphoid Tumors in Mice. H. S. Kaplan.—p. 267.
Neoplastic Transformation as Biologic Fractionation of Related Enzyme Systems. J. P. Greenstein, P. J. Fodor and F. M. Leuthardt.—p. 271.
Cardiovascular Effects Produced by Stilbamidine in Patients with Multiple Myeloma. H. R. Bierman and M. Schulow.—p. 279.
Influence of Perforation Design on Growth of Tissue Cells Under Perforated Cellophane Sheets in Vitro. W. R. Earle, V. J. Evans, M. F. Edward and E. Ducheane.—p. 291.

Journal of Neurophysiology, Springfield, Ill.

12:291-358 (Sept.) 1949. **Partial Index**

Retinal Processes and Their Role in Color Vision. K. Motokawa. —p. 291.
Central Inhibitory Effects of Carbon Dioxide: I. Felis Domesticus. G. H. Pollock.—p. 313.
Cerebello-Bulbo-Reticular Pathway for Suppression. R. S. Snider, W. S. McCulloch and H. W. Magoun.—p. 325.
Respiratory and Vascular Responses in Monkeys from Temporal Pole, Insula, Orbital Surface and Cingulate Gyrus: Preliminary Report. B. R. Kaada, K. H. Pribram and J. A. Epstein.—p. 347.

Journal of Nutrition, Philadelphia

39:445-600 (Dec.) 1949. **Partial Index**

Effect of Cocoa upon Calcium Utilization and Requirements, Nitrogen Retention and Fecal Composition of Women. M. L. Bricker, J. M. Smith, T. S. Hamilton and H. H. Mitchell.—p. 445.
*Effect of Storage on Nutritional Qualities of Proteins of Wheat, Corn and Soybeans. H. H. Mitchell and J. R. Beadles.—p. 463.
Nutrient Analyses of United States Food Supplies: Analyses of Composited Samples of Our National Food Supplies and White Flour and Non-White Flour Components Thereof in Terms of Various Nutrients. L. E. Booher and I. T. Behan.—p. 495.
Relationship of Dietary Factors to Toxicity of Alloxan. C. S. Rose and P. György.—p. 529.
Nitrogen Balance in Men Consuming Raw or Heated Egg White as Supplemental Source of Dietary Protein. H. H. Scudamore, G. R. Morey, C. F. Consolazio and others.—p. 555.

Effect of Storage on Protein Values.—The experiments reported by Mitchell and Beadles were designed to study the effect on the utilization of growing rats of the proteins of wheat, corn and soybeans in storage for periods up to three years. Each of the grain samples was stored in two conditions, as whole kernels and as a meal ground to pass through a 1 mm. sieve. The ground soybean sample was defatted and autoclaved for ninety minutes at 17 pounds steam pressure to simulate commercial expeller-processed meal. The samples were stored in screw-top tin cans (capacity about 1 gallon, 3,785 cc.) and were sealed with paraffin. The authors obtained the impression that the nutritive value of the proteins of cereal grains stored under conditions preventing insect infestation and mold growth (by lowering moisture content below a critical level) is not appreciably altered by seed respiration over long periods of time. This is not true for the soybean, the proteins of which may suffer considerable nutritional damage after one year of storage. The distinction between the two types of seed may reside largely in the fact that the living part of the seed, the embryo, constitutes only a small part of the cereal seed but a predominant part of the legume seed.

Kansas Medical Society Journal, Topeka

50:529-580 (Nov.) 1949

Uterine Bleeding. R. J. Crossen.—p. 529.
Basal Metabolism and Hypothyroidism. D. P. Trees.—p. 534.
Malignant Tumors of Accessory Nasal Sinuses. G. M. Tice and W. L. Beller.—p. 537.
Cytologic Study of Sputum, Bronchial Secretion, and Pleural Fluid in Carcinoma of Lung. D. E. Miller—p. 543.
Tuberculosis in the Aged. J. L. Sitterley.—p. 547.

50:581-636 (Dec.) 1949

Survey of Anesthesia for Intra-Abdominal Operations. J. W. Pender. —p. 581.
New Concept of Treatment. DeM. E. Eckart.—p. 586.
Gastroduodenal Ulcer Following Gastroduodenostomy for Duodenal Ulcer. V. D. Alquist and P. Cooper.—p. 589.
Carotenemia: Case Report. W. L. Schafer and E. L. Slentz.—p. 592.
Control vs. Eradication of Tuberculosis. J. L. Sitterley.—p. 593.

Minnesota Medicine, St. Paul

32:1161-1262 (Dec.) 1949

*Cytologic Diagnosis of Malignant Lesions of Esophagus and Cardia of Stomach. H. A. Andersen, J. R. McDonald and A. M. Olsen. —p. 1181.
*Malignant Tumors of Lung: Their Diagnosis by Cytologic Examination of Sputum and Bronchial Secretions. J. R. McDonald and L. B. Woolner.—p. 1186.
Cancer Detection Center at the University of Minnesota. T. B. Hubbard Jr.—p. 1190.
New Forms of Vital Records for 1950. G. G. Casady and J. W. Brower.—p. 1193.
Flexor Tendon Injuries of Hand.—A. T. Hays.—p. 1199.
Medical Care Problems of the Aged. E. J. Simons.—p. 1206.
Sources of Error in Diagnosis of Feeblemindedness. G. Arthur. —p. 1210.

Cytologic Diagnosis in Lesions of Esophagus and Gastric Cardia.—This report by Andersen and his associates is based on a review of 86 cases in which cytologic examination of smears obtained from the esophagus or gastric cardia apparently disclosed malignant cells which were considered indicative of the presence of a primary malignant lesion of one of these organs. In 2 of the 86 cases operation subsequently disclosed only benign hyperplasia of the squamous epithelium. The authors do not consider it possible to reduce the percentage of cases in which such an error may occur. The final diagnosis in the remaining 84 cases was squamous cell carci-

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noma of the esophagus in 44 cases, leiomyosarcoma of the esophagus in 1 case and adenocarcinoma of the gastric cardia in 39 cases. Esophagoscopic biopsy did not disclose evidence of a malignant lesion in 15 of the 84 cases. An exploratory operation was performed in 35 of the 84 cases. In 7 of the 35 cases the disclosure of malignant cells by cytologic examination was the only microscopic evidence of a malignant lesion before operation was performed. In all 7 cases the cytologic diagnosis was confirmed by biopsy or histologic examination of the excised tumor. Cytologic examination of smears is of more value in the diagnosis of adenocarcinoma of the gastric cardia than it is in the diagnosis of carcinoma of the esophagus.

Malignant Tumors of Lung: Cytologic Examination.—According to McDonald and Woolner cytologic examination of the sputum and bronchial secretions is performed routinely at the Mayo Clinic in all cases in which the presence of bronchogenic carcinoma is suspected. This examination has been employed during three years in approximately 6,000 cases. It has disclosed carcinoma cells in more than 400 of these. In approximately four fifths of the 6,000 cases the material consisted of sputum; in the remaining cases it consisted of bronchial secretions, bronchial smears or bronchial washings. An exploratory operation has been performed in 144 of the 400 cases in which cytologic examination disclosed carcinoma cells. Pneumonectomy or lobectomy was performed in 77 of the 144 cases. The value of this diagnostic method has been questioned because the presence of carcinoma cells in the sputum or bronchial secretions has been said to be a late manifestation of bronchogenic carcinoma. It is significant that the presence of carcinoma cells in the sputum or bronchial secretions was the only microscopic evidence of carcinoma in 32 of the 77 cases in which the lesion proved to be operable. The authors conclude that cytologic examination of the sputum and bronchial secretions is useful in the preoperative diagnosis of bronchogenic carcinoma. It should be remembered, however, that this method of examination results in a false negative diagnosis in approximately 30 per cent of cases and that it results in a false positive diagnosis in approximately 2 per cent of cases.

New England Journal of Medicine, Boston

241:889-950 (Dec. 8) 1949

*Transfusion Treatment of Shock Due to Myocardial Infarction. F. H. Epstein and A. S. Relman.—p. 889.
B.C.G. Tuberculin as Testing Material. E. Friedman and I. Silverman. —p. 894.
*Observations on Symptomatic Treatment of Chronic Vascular Headache with Cafergone (Ergotamine Tartrate and Caffeine). S. G. Cohen and L. H. Criep.—p. 896.
Mycetoma: Report of Case of Actinomycotic Variety. E. B. Reilly and H. H. Steel.—p. 900.
Herpes Gestationis: Fetal-Anomaly Syndrome Treated Successfully with Sulfapyridine. J. G. Downing and O. F. Jillson.—p. 906.
Rh and Other Blood Groups (Concluded). L. K. Diamond and F. H. Allen Jr.—p. 907.
Glioblastoma Multiforme of Left Temporal Lobe, with Metastases to Spinal Cord and Spinal Nerves.—p. 939.
Cirsoid Aneurysm of Branch of Left Gastroepiploic Artery, with Rupture and Massive Hemorrhage.—p. 942.

Transfusion Treatment of Shock Due to Myocardial Infarction.—Epstein and Relman point out that there has been considerable dispute over the safety and efficacy of transfusions of blood or plasma in the vascular collapse attending myocardial infarction. The authors compared the effects of transfusions in 30 patients in shock after coronary occlusion with the natural history of the disease in 20 patients not given transfusions. Although transfusion seemed to be of benefit in a few cases, there was no significant difference between the two groups in mortality and recovery from shock. Transfusion did not seem to increase the incidence of pulmonary edema or the severity of congestive failure.

Treatment of Chronic Vascular Headache.—Cohen and Criep say that many patients with migraine know that black coffee will enhance the effect of ergotamine tartrate or afford a certain degree of relief by itself. Horton, Ryan and Reynolds obtained excellent results with cafergot (formerly cafergone) in patients with migraine. The authors present observations on 50 patients with chronic vascular headache who were given a therapeutic trial with cafergot. This was administered in oral tablets (E. C. 110) (each tablet contains 1 mg. ergotamine tartrate and 100 mg. caffeine) and in the form of a rectal suppository (E. C. 112) (each contains 2 mg. ergotamine tartrate and 100 mg. caffeine) for those in whom the oral preparation was contraindicated. The dosage was three tablets immediately during the aura or at the first warning of an impending headache and then one every half hour as needed for three subsequent doses, the total dosage not exceeding six tablets. The data presented suggest that the synergistic action of caffeine when added to ergotamine tartrate is more effective in some patients with migraine than that of ergotamine alone when given orally, and is occasionally as effective as that of ergotamine tartrate when administered hypodermically. The indications and contraindications for its use and the side actions produced are essentially those of ergotamine tartrate.

New Jersey Medical Society Journal, Trenton

46:499-546 (Nov.) 1949

Derangements of Hip in Infancy and Childhood. H. T. Hansen. —p. 501.
Preoperative and Postoperative Management of Diabetics. G. Ginsberg.—p. 504.
Development of Campaign Against Rheumatic Diseases. C. McEwen. —p. 510.
Psychosomatic Management of Respiratory Allergic Patient. L. Fischer. —p. 516.
Pre-Anesthetic Preparation in Children. L. C. Mark and E. M. Papper.—p. 520.
Cancer of Cervix. G. P. Koeck.—p. 524.

Pennsylvania Medical Journal, Harrisburg

52:1521-1616 (Nov.) 1949

Death and Injury as Related to Automobile and to the Engineering and Medical Professions. F. D. Woodward.—p. 1537.
Present-Day Treatment of Duodenal Ulcer. D. J. Sandweiss.—p. 1543.
Meckel's Diverticulum Causing Recurrent Intussusception. J. W. Levering and D. B. Miller.—p. 1553.
Pathogenesis of Silicosis. S. M. Evans and R. L. Kascht.—p. 1557.
Clinical Aspects of Anthracosilicosis. B. Gordon.—p. 1560.

Physiological Reviews, Baltimore

29:281-402 (Oct.) 1949

Adrenal Cortex and Water Metabolism. R. Gaunt, J. H. Birnie and W. J. Eversole.—p. 281.
Motion Sickness. D. B. Tyler and P. Bard.—p. 311.
Zinc in Mammalian Organism, with Particular Reference to Carbonic Anhydrase. B. L. Vallee and M. D. Altschule.—p. 370.
Thiaminase, Chastek Paralysis Factor. W. H. Yudkin.—p. 389.

Public Health Reports, Washington, D. C.

64:1631-1654 (Dec. 23) 1949

Denver Rheumatic Fever Diagnostic Service: Purpose and Method of Operation. W. Darley.—p. 1631.

64:1655-1678 (Dec. 30) 1949

Public Health Approach to Improving Community Mental Health Through Schools. C. A. Ullmann.—p. 1655.
*Rat-Bite Fever in Montana. W. L. Jellison, P. L. Eneboe, R. R. Parker and L. F. Hughes.—p. 1661.
Defects in Sanitary Environment on Vessels. R. C. Graber and A. P. Miller.—p. 1666.

Rat-Bite Fever in Montana.—Jellison and his collaborators present a case of rat-bite fever that occurred in the fall of 1948 in a girl 9 years of age living on a farm near Bozeman, Mont. The child had been bitten by a mouse, which she found sick in the yard of her farm home. Seven days later her finger became swollen and painful; there was malaise with chilly sensations. She was first seen by a physician nine days later, sixteen days after she had been bitten. At that time her oral temperature was 103 F. Physical examination was negative except for a series of macules extending up the right arm to the axilla. The macules varied from 0.5 to 2 cm. in diameter. She was treated with penicillin and sulfadiazine. However, high temperatures recurred and on the basis of a clinical diagnosis of tularemia, which, however, could not be corroborated by agglutination tests, streptomycin therapy was started nineteen days after the onset of symptoms. The temperature became normal within twenty-four hours, and convalescence was uneventful. Infection apparently resulted from the bite of a mouse, probably a house mouse. Spirillum minus

was demonstrated in heart-tissue smears of 16 house mice trapped in the farm buildings and in those of 1 field mouse trapped in a field ¼ mile away.

Review of Gastroenterology, New York

16:887-946 (Dec.) 1949

Depressionless Relaxation for Gastrointestinal Surgery. A. L. Soresi. —p. 897.
Anoxic Inhibition of Small Bowel Peristalsis. B. J. Ficarra.—p. 906.
Intestinal Bacteria. Pathogenic and Nonpathogenic. A. Bassler and A. G. Peters.—p. 911.
Gastric Ulcer with Liver Disease: Report of Case. I. Deutsch. —p. 919.

Rocky Mountain Medical Journal, Denver

46:993-1080 (Dec.) 1949

Anorexia Nervosa. D. D. Bond.—p. 1012.
Recent Advances in Care of the Deafened. J. M. Brown.—p. 1020.
Surgical Treatment of Hermaphroditism. C. L. Shields, C. B. Freudenberger and O. Ogilvie.—p. 1024.
Review of Management of Persistent Occiput Posterior Positions. H. W. Fuller, E. L. Hall and F. L. McPhail.—p. 1027.
Surgical Significance of "Non-Functioning" Gall Bladder. E. J. Lowell Jr.—p. 1033.

Southern Medical Journal, Birmingham, Ala.

42:1021-1110 (Dec.) 1949

Surgical Treatment of Degenerative Arthritis of Hip. W. G. Stuck. —p. 1021.
Benign Giant-Cell Tumor of Scapula: Case Report. I. H. Rapp and F. W. Lee.—p. 1029.
Sudden Death During Pregnancy in Sickle Cell Anemia: Review of Literature and Report of Case. R. H. Rigdon.—p. 1032.
*Use of Potassium Chloride and "Digoxin" in Congestive Heart Failure. I. E. Buff.—p. 1037.
Myocardial Metastases from Carcinoma of Cervix with Ventricular Tachycardia and Sudden Death: Case Report. R. L. Dross and F. B. Cutts.—p. 1040.
Chronic Hypertrophic Spinal Pachymeningitis. J. A. Colclough, H. B. Greenberg and F. J. Jones.—p. 1043.
Infra-Orbital Sinus Implantations for Experimental Study of Carcinogenesis. M. P. Neal, H. C. McDougle and H. H. Sweets Jr. —p. 1048.
Acne Problem. H. M. Robinson.—p. 1050.
Pancreatic Calculosis: Diagnosis Often Possible Without Extensive Procedures. R. L. Cope.—p. 1060.
Observations on Vascular Changes Which Accompany Diabetes Mellitus. C. Hargrove, H. D. Manser Jr., R. Hill and others.—p. 1064.
Use of Serum pH in Clinical Medicine. W. M. Kelsey and L. B. Leinbach.—p. 1067.
Dangers of "Quick" Medical Education. D. B. Calvin.—p. 1071.
Neurosurgical Procedures for Relief of Intractable Pain. W. T. Haverfield and C. Keedy.—p. 1074.
Cryptic Depressive States. O. B. Chamberlain.—p. 1078.
Vasodilators in Treatment of Functional Dysmenorrhea. M. I. Griffith and J. M. Little.—p. 1082.
Postabortal Tetanus. R. G. Campbell and W. W. Brown Jr.—p. 1086.
Spontaneous Rupture of Non-Gravid Uterus. H. C. Freeh.—p. 1088.
Muscle-Relaxing Agent in Treatment of Cerebral Palsy. H. E. Hippa. —p. 1090.
Central Placenta Previa with Spontaneous Delivery: Report of Case. T. B. Fletcher and J. W. Pilkington.—p. 1092.

Potassium Chloride and Digoxin in Congestive Heart Failure.—According to Buff thousands of cases of poisoning have occurred since the advent of some of the purified glycosides of digitalis in the treatment of heart disease. The chief reasons for this are the use of one standard dose for all persons, the insidious onset of toxicity with a lack of irritative symptoms and the slow rate of elimination with frequent cumulative effects from the leaf and long-acting glycosides such as digitoxin. The author used potassium therapy as proposed by Sampson in cases of digitalis poisoning. In the event of digitalis overdosage, 5 to 10 Gm. of potassium chloride are given in milk. If oral administration is contraindicated, then intubation is accomplished with a Levine tube. Rectal instillation of 10 Gm. of potassium chloride dissolved in 200 cc. of tap water was accomplished in 2 cases. As soon as the patient recovers from digitalis intoxication, a maintenance dose of 1 Gm. of potassium chloride in milk, three times a day, is given. After one week of potassium administration, digoxin is started in the smallest dose that can maintain digitalization. The author reviews clinical experiences with this combined therapy in 40 cases. His observations illustrate the safety and efficacy of this method in the treatment of congestive heart failure. Simultaneous administration of digoxin and potassium will delay or prevent the toxic action of digitalis.

United States Naval Med. Bulletin, Washington, D. C.

48:995-1204 (Nov.-Dec.) 1949. Partial Index

Cardiolipin-Slide and Standard Kahn Tests for Syphilis: Comparative Study. W. Silliphant, J. J. Engelfried, G. S. Ellis and B. Butterfield.—p. 995.
*Coccidioidomycosis: Review of Literature and Report of 9 Cases. I. L. Norman and A. L. Lawler.—p. 1005.
Ureterosigmoidostomy: Experience with Nesbit Technique. W. W. Miller Jr.—p. 1021.
Experiences with Marrow Nail Operation According to Principles of Kuentscher: Fractures of Humerus: Part IV. C. Haebler.—p. 1033.
Experiences with Bone Graft Surgery in Naval Service. J. W. Toumey.—p. 1056.
Bacteriostatic Coagulants as Fillers in Bone Surgery. J. W. Metcalfe. —p. 1067.
Acute Bacterial Endocarditis of "Escherichia Coli" Origin: Streptomycin Treatment. J. Love, C. P. Powell, W. M. Stronk and G. F. Hinkens.—p. 1070.
Aureomycin in Treatment of Infectious Mononucleosis. H. A. Lyons. —p. 1076.
Infectious Mononucleosis: Report of Relapsing Case Treated with Chloromycetin. F. G. Hirsch.—p. 1081.
Tularemia: Report of Case Treated Successively with Streptomycin and Aureomycin. H. H. Carroll and J. E. Gorman.—p. 1085.
Rheumatic Fever. J. A. C. Gray.—p. 1088.

Coccidioidomycosis.—Norman and Lawler report 9 patients with proved coccidioidomycosis observed in the United States Naval Hospital, San Diego, during the past two years. They stress that primary pulmonary coccidioidomycosis occurs frequently in the endemic areas in the southwestern part of the United States. The primary pulmonary form may be so benign as to escape detection. Frequently, the infection produces symptoms that closely simulate lobar pneumonia, nonspecific pneumonitis, pulmonary tuberculosis and new growths. It is usually accompanied by hilar node involvement and can be easily diagnosed by specific tests (skin tests with coccidioidin, complement fixation and precipitin tests) if the disease is suspected. In 5 per cent of the cases there is an accompanying erythema nodosum or erythema multiforme which is an allergic manifestation of the disease. The disseminated form of the disease occurs rarely, in about 1 case in 400. It carries a mortality of 50 per cent or more and follows the primary form in from several months to ten years or longer. In the disseminated form any organ in the body may become involved.

Wisconsin Medical Journal, Madison

49:1049-1164 (Dec.) 1949

General Management of Carcinoma of Large Bowel. P. F. Doege. —p. 1069.
Evaluation of Methods and Treatment of Peripheral Arterial Disorders. R. A. Frisch and M. Hardgrove.—p. 1072.
*Lithium Intoxication Producing Chorea Athetosis with Recovery. H. A. Peters.—p. 1075.
Female Intersex: Report of Unusual Case. L. E. Fazen Jr.—p. 1077.
Smallpox Vaccinations in Institutions for Aged and Infirm. S. T. Gettelman.—p. 1079.

Lithium Intoxication from Salt Substitute.—Peters says that cases of lithium chloride intoxication have been reported since the introduction of lithium chloride as a substitute for table salt. In a man aged 57 chorea-athetosis of Huntington's type developed after sixteen days' treatment for cardiorenal edema on a salt restriction diet and free use of lithium chloride as a salt substitute. Approximately 20 Gm. of lithium chloride had been ingested when the toxic symptoms began. The clinical picture was progressive until the toxic factor of lithium salt was discontinued. Recovery from the mental disturbances and the choreo-athetosis occurred after five days, with return to normal status. A salt-free diet and cardiorenal impairment appear to predispose to this toxic effect.

Yale Journal of Biology and Medicine, New Haven

22:109-198 (Dec.) 1949

Remarks to Undergraduate Students of Clinical Medicine. G. F. Powers.—p. 109.
Role of Certain Steroids in Adrenal-Hyaluronidase Relationship. J. C. Opsahl.—p. 115.
Rise of Scientific Activity in Colonial New England. F. G. Kilgour. —p. 123.
Toxic Effects of Antithyroid Drugs. J. P. Peters, E. B. Man, D. M. Kydd and others.—p. 139.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted. Single case reports and trials of new drugs are usually omitted.

Biochemical Journal, London

65:245-372 (No. 3) 1949. Partial Index

Intermediary Metabolism of Mammary Gland: 2. Respiration and Acid Production of Mammary Tissue During Pregnancy, Lactation and Involution in Rat. S. J. Folley and T. H. French.—p. 270.
Tryptophan and Biosynthesis of Nicotinamide. P. Ellinger and M. M. A. Kader.—p. 276.
Chromatographic Studies of Nucleic Acids: 1. Technique for Identification and Estimation of Purine and Pyrimidine Bases, Nucleosides and Related Substances. R. Markham and J. D. Smith.—p. 294.
Studies in Vitamin A. S. Ball and R. A. Morton.—p. 298.
Pyruvate-Oxidase System in Brain and Tricarboxylic Acid Cycle. R. V. Coxon, C. Liébecq and R. A. Peters.—p. 320.
Acceleration of Bacterial Glutamic Decarboxylase and Glutaminase by Cetyltrimethylammonium Bromide. D. E. Hughes.—p. 325.
Factors Influencing Polysaccharide Content of Escherichia Coli. S. Dagley and E. A. Dawes.—p. 331.
Breakdown of Oxidized Forms of Coenzymes I and II by Enzyme from Central Nervous System. H. McIlwain and R. Rodnight.—p. 337.

British Journal of Radiology, London

22:677-736 (Dec.) 1949. Partial Index

Experimental Determination by Ionization Methods of Rate of Emission of Beta- and Gamma-Ray Energy by Radioactive Substances: Isotopes Na^{24}, P^{32}, Co^{60} and I^{131}. L. H. Gray.—p. 677.
External Measurement of Radio-Iodine in Thyroid Gland. T. H. Oddie and R. K. Scott.—p. 698.
Breast Carcinoma Treated with Stilboestrol and Deep X-Ray: Report of Case. G. G. Binnie.—p. 714.
Pneumoconiosis and Tuberculosis in Dockers Dealing with Grain and Seeds. L. Dunner.—p. 717.
*Miliary Calcification of Liver: Report of Case. R. Astley and N. Harrison.—p. 723.
Xanthomatosis Associated with Vertebra Plana. P. M. Davies.—p. 725.

Miliary Calcification of Liver.—Astley and Harrison cite the case of a soldier, aged 21, who had received several stab wounds in the abdomen, chest, face and neck. He had a hemothorax on the right side. At exploratory laparotomy it was determined that no abdominal viscus had sustained trauma, and the wounds were sutured after surgical toilet and aspiration of a small amount of intraperitoneal blood. During the operation the entire surface of the liver was seen to be spotted with small, discrete white nodules, each about the size of a match-head. The nodules in the liver and similar nodules in the spleen were demonstrated by roentgenography. Calcification in the liver is rare. According to one report only 1 case was found in 8,000 necropsies. Hydatid disease, abscess, hepatic calculi, metastatic foci, Hodgkin's disease, tumors, gummas and tuberculosis are cited as possible causes of these calcifications. In the reported case practically all these causes could be excluded. It seemed most likely that the opacities in the liver and spleen were due to calcified miliary tuberculous foci.

British Medical Journal, London

2:1247-1306 (Dec. 3) 1949

Electron Microscopy of Bacteria and Viruses. A. S. McFarlane.—p. 1247.
Clinical Tests of New Coumarin Substance: Report to Medical Research Council. C. C. Bart, H. P. Wright and M. Kubik.—p. 1250.
Isolation of Salmonellae from Dogs, Cats and Pigeons. J. C. Cruickshank and H. W. Smith.—p. 1254.
Hospital Outbreak of Enteritis Due to Duck Eggs. L. P. Garrod and M. B. McIlroy.—p. 1259.
Martius Bulbo-Cavernosus Interposition Operation. W. Shaw.—p. 1261.
Thrombosis of Internal Carotid Artery. T. G. I. James.—p. 1264.
Ogilvie's Syndrome of False Colonic Obstruction: Is It a New Clinical Entity? J. A. MacFarlane and S. K. Kay.—p. 1267.
*Kartagener's Syndrome. C. T. Andrews.—p. 1269.
*Death from Dermatitis and Stomatitis During Streptomycin Therapy. R. A. Pallister.—p. 1271.
Unusual Manifestations of Malaria. A. K. Nandi.—p. 1272.

Kartagener's Syndrome.—Andrews discusses the association of complete transposition of the viscera with bronchiectasis and points out that it was first mentioned by Siewert in 1904. Subsequently, a few isolated reports appeared until Kartagener in 1933 reviewed 11 cases. Some later reports have mentioned congenital absence of the frontal sinus, usually associated with ethmoid and maxillary infection. The case cited showed congenital abnormality of the paranasal sinuses to an extent not hitherto recorded. The patient was a man aged 44, with a productive cough of many years' duration. Situs inversus totalis was demonstrated. Plain roentgenograms of the chest revealed a condition suggestive of multiple cysts in the left upper lobe. A bronchogram showed that the lungs were transposed, that the cysts seen in plain film were in communication with the bronchial tree and that bronchiectasis was also present in the right lower lobe and lingula. Bronchoscopy showed much pus coming from the left upper bronchus. The bronchus of the left middle lobe looked inflamed, and some pus was seen there. Radiographs also revealed small frontal sinuses and poorly developed ethmoid labyrinths. Both antrums were small and poorly developed. Sphenoidal sinuses were absent. No air cells could be found in either mastoid. The ballooning of the ear drums in this case was assumed to be a compensatory phenomenon related to the absence of mastoid air cells. It was thought that the extreme lack of development of the sinuses had protected them from infection, the only formed cavities being those of the antrums. The bronchiectasis and cystic condition of the lungs are believed to be similar in causation and to have followed an attack of pneumonia in infancy. The high incidence of bronchiectasis in cases of transposition raises the possibility of congenital abnormality of the walls of the bronchioles as a factor in these and possibly other cases.

Death from Dermatitis and Stomatitis During Streptomycin Therapy.—Pallister says that when dermatitis occurs during streptomycin therapy it is usually mild and stomatitis is rare. He reports 2 cases in which fever and lesions of the skin and mucous membranes occurred during the treatment of pulmonary tuberculosis with streptomycin. The patients were men aged 25 and 28; both died. The author believes that abnormal sensitivity to streptomycin or a direct poisoning by the drug is the most probable cause of the symptoms.

Glasgow Medical Journal

30:385-416 (Nov.) 1949

Disseminated Lupus Erythematosus: Notes on 3 Fatal Cases with Short Review of Literature. A. G. Fergusson, J. A. Milne and W. N. Shand.—p. 385.
Concentration of Biliary Constituents in Human Gall-Bladder. S. V. Telfer.—p. 395.
*Subacute Bacterial Endocarditis: Follow-Up of Patients Treated with Penicillin. J. B. Rennie and H. Conway.—p. 400.

Penicillin in Subacute Bacterial Endocarditis.—Rennie and Conway describe the fate of 13 patients with subacute bacterial endocarditis who were treated with penicillin. The treatment was unsuccessful in 6 patients. Heart failure was the cause of death in 4 of the 6. Persistent infection was considered the chief cause of death in only 1 patient, who had also severe renal damage. Cerebral embolism was responsible for the death in 1 instance and was a contributory factor in another case in which heart failure was the chief cause. The authors discuss the subsequent history of the 7 patients in whom treatment was successful and make a distinction between a relapse and a second attack. By relapse is meant return of symptoms and positive blood culture within a few weeks after a course of treatment and before discharge from hospital. Repeat illnesses occurring at a considerable period after the initial infection are referred to as second attacks. Three patients had second attacks at intervals of forty-two, twenty-two and thirteen months after they were discharged as cured. In all cases the same organism (a streptococcus of the viridans group) was responsible for both illnesses. Good health was enjoyed between attacks. One of the 7 patients in whom penicillin treatment was successful died three and one-half years later. The other 6 patients, all young females, were alive and well at the time of writing. All except 1 of those who died were males. Thus the prognosis was better in females. The development of heart failure during treatment had a serious prognostic significance.

Journal of Laryngology and Otology, London

63:635-710 (Nov.) 1949

Operative Treatment of Chronic Suppurative Otitis Media. W. I. Daggett.—p. 635.
Treatment of Recurrent Otitic Barotrauma by Irradiation (with Special Reference to Lymphoid Tissue in Sub-Mucosa of Eustachian Tube). E. D. D. Dickson and J. E. G. McGibbon.—p. 647.
Idiopathic Haemotympanum. D. Ranger.—p. 672.

Journal of Neurol., Neurosurg. & Psychiatry, London

12:259-338 (Nov.) 1949. **Partial Index**

Recording of Nerve Action Potentials Through Skin in Man. G. D. Dawson and J. W. Scott.—p. 259.
"Insertion Activity" in Electromyography, with Notes on Denervated Muscle Response to Constant Current. E. Kugelberg and I. Petersén. —p. 268.
Degeneration of Granular Layer of Cerebellum. A. D. Leigh and A. Meyer.—p. 287.
Intramedullary Trigeminal Tractotomy and Its Place in Treatment of Facial Pain. M. A. Falconer.—p. 297.
*Cerebral Angiography: Tolerance for Contrast Media of Diodrast Type. O. Olsson.—p. 312.
*Clinical and Electro-Encephalographic Studies of Prisoners Charged with Murder. D. Stafford-Clark and F. H. Taylor.—p. 325.

Cerebral Angiography: Tolerance for Contrast Mediums.—Olsson describes his investigations on the tolerance for contrast mediums of the iodopyracet (diodrast®) type in 330 cerebral angiographic examinations. Sixteen patients reacted with a slight rise of temperature, 2 with severe allergic symptoms and 3 with cerebral symptoms. In 2 of these a vascular lesion was diagnosed clinically. On roentgen examination a thrombosis of the internal carotid artery was diagnosed in one case and arteriosclerotic vascular changes in the other. In the third case a large temporal astrocytoma was found at operation. The general condition deteriorated considerably after the angiogram in all 3 patients; the injection was made rapidly, and the contrast medium was highly concentrated. The author mentions animal experiments which demonstrated that contrast mediums of the iodopyracet type are capable of impairing the vascular permeability of the cerebral vessels and breaking down the blood-brain barrier if they are of sufficient concentration and if they are allowed to act on the vessel wall for a sufficient length of time. In assessing the need for angiography the possible risks should be taken into consideration. Use of the method should be assigned to departments in which there is enough material available for the radiologist to gain experience in cerebral angiography.

Electrocardiographic Studies on Prisoners Charged with Murder.—Stafford-Clark and Taylor made clinical and electroencephalographic studies on 64 prisoners charged with murder. Their observations suggest that a significant correlation exists between apparently motiveless crime and electroencephalographic abnormality. Although this abnormality is not specific, it has been found in over 70 per cent of prisoners whose crimes appeared motiveless but who were otherwise clinically sane and normal.

Lancet, London

2:1021-1066 (Dec. 3) 1949

*"Pleural Shock." A. Morland.—p. 1021.
Caesarean Section in Infected Cases. F. Stabler.—p. 1023.
Q Fever in Great Britain: Isolation of Rickettsia Burneti from Indigenous Case. F. O. MacCallum, B. P. Marmion and M. G. P. Stoker.—p. 1026.
*Q Fever in Great Britain: Clinical Account of 8 Cases. J. B. Harman. —p. 1029.
Early Diagnosis of Cerebral Palsy. C. D. S. Agassiz, M. B. O'Donnell and E. Collis.—p. 1030.
Suggested Method for Titration of Certain Antibiotics. F. C. O. Valentine and R. G. S. Johns.—p. 1033.
Reticulocyte Response to Liver Therapy in Pernicious Anaemia. J. Kohári-Kuchárik.—p. 1034.
Erythema Multiforme Exudativum (Stevens-Johnson Syndrome). E. Dresner.—p. 1036.

"Pleural Shock."—According to Morland the term "pleural shock" should be dropped, since there is no evidence that mechanical or chemical stimulation of sensory nerves in the pleura is any more likely to produce serious or fatal accidents than similar trauma in other parts of the body. Provided that an adequate collapse of the lung has already been obtained, there is no reason to believe that local anesthesia increases the safety of a pneumothorax refill. Air embolism, either cerebral or coronary, is the commonest cause of accidents accompanying refills. When difficulty is experienced in finding the pleural space, the patient should not be encouraged to breath deeply, since this may lead to the passage of air into a pulmonary vein directly from air-containing tissue, even when no air is given from the apparatus. Five serious accidents, of which 1 was fatal, during aspiration of pleural fluid are described, air embolism having with all probability been excluded. The evidence suggests that disturbance of the heart from reduction of the intrathoracic pressure is the most likely explanation. Such accidents may happen when the pleura is thickened and inelastic. It is therefore important to avoid extremely low pressures during aspiration or replacement of fluid.

Q Fever in Great Britain.—Harman reports 8 cases of Q fever in 5 men and 3 women between the ages of 29 and 78. One of these patients, a man aged 78, was admitted to the Royal Cancer Hospital probably during the incubation period of Q fever and died of pneumonia after a febrile illness lasting eleven days. Four patients, 1 nurse, 2 pathologists and 1 post-mortem room attendant were infected during the terminal stages of the illness and at the necropsy of the first patient. The sixth patient was the wife of the patient who died of pneumonia. No connection with the other 6 patients could be traced in the seventh and eighth patients (husband and wife). Q fever starts suddenly. At first the symptoms may be mild, so that the patient is not confined to bed for several days. Temperature of 104 F. is common when the attack is fully developed. The temperature sometimes falls to normal more than once a day, and these swings are accompanied by rigors and drenching sweats. The pulse rate often remains at 70 per minute. Prostration is severe, and delirium is common. Muscular aches and backaches are early symptoms, but these are soon overshadowed by headache, which is continuous behind the eyes or at the back of the head. Within a week a tickling, unproductive cough begins, but it seldom develops further, though one of the author's patients had a purulent sputum intermittently streaked with blood. Roentgenologic signs may persist for weeks and suggest partial lobular consolidations, usually at the base though any lobe may be affected. Collapse and pleural effusion may be seen. Apart from the anorexia and nausea of fever, gastrointestinal symptoms are rare. There is no skin rash such as characterizes many other rickettsial infections. There is no coryza. Complications are hardly ever seen. Usually the disease persists for a week, but occasionally the temperature remains elevated for a month. Termination is by lysis. Fatalities are mostly confined to persons over 50 years of age who have some other chronic disease.

Medical Journal of Australia, Sydney

2:589-624 (Oct. 22) 1949

Juvenile Posture of Legs and Knees. E. E. Price.—p. 589.
Posture Fundamentals. J. Macnamara.—p. 592.
Review of 50 Cases of Gastrectomy for Peptic Ulcer, with Special Reference to Local Anaesthesia. V. J. Kinsella.—p. 595.
*Treatment of Acute Lumbago and Acute Low-Back Strain in General Practice. J. H. Young.—p. 596.
Acute Porphyria, with Report of 2 Cases. B. S. Hetzel.—p. 600.
Enterocele. H. K. Porter.—p. 602.
Injury to Semilunar Cartilage in Knee Joint: Review of 140 Cases. C. H. Hembrow, A. J. W. Abern, G. Brown and others.—p. 605.
Influenzal Meningitis. G. A. Robbie and W. R. Pitney.—p. 609.

Treatment of Lumbago and Lower Back Strain.—According to Young acute lumbago is an acute attack of pain in the lumbar region usually coming on without apparent cause. Acute lower back strain is an essentially similar condition, the pain being brought on by trauma, usually a bending, lifting or twisting strain. The author gives reasons why it can be assumed that the majority of attacks of lower back pain are due to disk lesions. He maintains that there is no justification for believing that attacks of lower back pain commonly seen in practice are due to lesions of muscle, fascia or ligament until such conditions have been seen. He does not deny that pain of muscular origin does occur in the back. It may follow unaccustomed work but will abate in a few days. If lower back pain is severe enough or lasts long enough to make the patient seek medical advice, it is not muscular in origin. Surgical experience has taught that an attack of lower back pain associated with an acquired scoliosis is probably always due to protrusion of a lumbar intervertebral disk and that if there is no acquired scoliosis there will be a degenerated disk or only a tiny protrusion. The author found that attacks of acute lower back pain without scoliosis are usually rapidly relieved by an epidural injection of procaine. Of 30 patients thus treated, 23 obtained immediate relief of pain, tenderness and limitation of movement. Attacks of acute lower back pain associated with acquired

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scoliosis are usually relieved by infiltration with procaine of the sacrospinalis on the convex side, followed by traction. Fifteen patients so treated have lost their pain, deformity and limitation of movement in an average period of four days. After-treatment with a support and exercises is necessary in both types.

2:661-696 (Nov. 5) 1949. Partial Index

*Poliomyelitis: Account of 90 Cases, with Reference to Role Played by Tracheotomy in Bulbar Involvement. G. A. McIntosh and D. B. McLeay.—p. 661.
Experience in Use of Anticoagulants. W. McI. Rose.—p. 665.
Trichinella Spiralis: Further Search for Infections of Man in Australia. A. J. Bearup.—p. 673.
Treatment of Pneumococcal Meningitis. G. A. Robbie.—p. 676.

2:697-732 (Nov. 12) 1949

Observations on Phonocardiography. R. A. Green and Z. Freeman. —p. 697.
Painful Stiff Shoulder. L. T. Wedlick.—p. 707.
Macroscopic Diagnosis of Malignancy in Ovarian Tumours. H. F. Bettinger.—p. 710.
Study of Healed Fractures in Australian Aboriginal. T. A. R. Dinning. —p. 712.

Tracheotomy in Bulbar Poliomyelitis.—McIntosh and McLeay review observations on 90 patients with poliomyelitis admitted to an infectious disease hospital. They present the general features of the whole series of cases and discuss the physiopathologic aspects, including the role of the hypothalamus and the sequels of the various derangements of function. Of the 21 patients with bulbar involvement there were 8 without respiratory paralysis. Only 1 of these 8 patients required tracheotomy for severe respiratory obstruction, and this patient made a rapid recovery. The remaining 13 patients all had respiratory paralysis. Three of the first of these died before tracheotomy was instituted. Two patients with severe pharyngeal and slight respiratory involvement recovered with postural drainage, suction and artificial feeding. The other 8 patients all had severe pharyngeal and respiratory involvement and were all subjected to tracheotomy. Three of these patients died in spite of tracheotomy treatment in the respirator and transfusions, possibly from involvement of the vital centers. The other 5 patients subjected to tracheotomy all made a good recovery, two requiring respirator treatment. The authors feel that these 5 patients would almost certainly have died without tracheotomy. Continual aspiration of the pharynx and trachea with a rubber tube of the correct caliber for the tracheotomy tube was necessary. Postural drainage and turning of the patient from side to side to prevent atelectasis were found to be important adjuncts. In most cases it was necessary to change the tracheotomy tube daily and in some twice daily. The care of patients who had undergone tracheotomy and required treatment in the respirator presented a special problem. In some patients with long necks the opening of the tracheotomy tube lay outside the collar of the respirator and in other patients inside the collar, when it was necessary to provide an airway to the exterior. This was accomplished by means of a small right-angled metal tube fitting into the tracheotomy tube and attached to a length of rubber tubing passing through the collar to the outside.

Annales Paediatrici, Basel

173:345-404 (Dec.) 1949

Contribution to Pathology of New-born Child and of Young Infant. C. de Lange.—p. 345.
Epituberculosis. O. Görgényi-Göttche.—p. 356.
*Time of Occurrence of Complication of Pregnancy as Casual Factor of Congenital Anomalies. B. Grünfelder and W. Lasch.—p. 388.

Time of Occurrence of Complication of Pregnancy as Causal Factor of Congenital Anomalies.—Grünfelder and Lasch cite observations which suggest that the predisposition to certain organic defects is determined by the affinity of cells which are of the same embryonal age, regardless of the later position in the body. In postmortem studies on monsters, they observed that, in those with a defective rhinencephalon, developmental anomalies were present also in the adrenals and in the genitalia. They deduced that, if a noxious factor acts on the maternal organism at a time when the embryonal development of certain organs begins, the development of the first anlage is inhibited and this may lead to permanent anomalies in these organs. Experimental investigations on hen eggs and rats were interrupted by war but, when the authors learned about the effects of rubeola in the mother during a certain stage of her pregnancy on congenital cataract and other anomalies in the offspring, they recalled the frequent concurrence of tumor of the pineal body and pubertas praecox or the occurrence of genital and adrenal symptoms in the presence of pineal tumors. They review data on 26 cases of this type. They believe that the reports from mothers of children with anomalies such as cardiac defects, cataract, harelip, luxation of the hip joint and the like, and the material they collected from the world literature support their view that the time when damage occurs during pregnancy is of much greater importance for the development of congenital anomalies than the nature of the damaging agent. It appears that rubeolae produce the typical congenital malformations only if the infection or toxic agent affects the maternal organism during a specific time of pregnancy, i. e., when it occurs during the initial stage of the embryonal development of certain organs or organ systems.

Bruxelles-Médical, Brussels

29:3501-3554 (Dec. 4) 1949. Partial Index

Narcoanalysis. P. Cosa.—p. 3511.
*Surgery of Toxic Goiters. R. Berger.—p. 3523.

Surgery of Toxic Goiters.—Berger performed subtotal thyroidectomy in one stage on 700 patients with hyperthyroidism. The postoperative mortality rate was little more than 0.5 per cent. Preoperative treatment consisted of bed rest for twelve days, administration of phenobarbital and quinidine sulfate and 30 drops of a 10 per cent iodine solution every day for ten days. Postoperative treatment consisted of the administration of 5 to 7 mg. of thyroxin immediately after the removal of the thyroid. This dose prevented a postoperative thyroid crisis in the majority of patients. Postoperative administration of thyroxin was based on the author's concept, supported by experimental and clinical experience, that the thyroid crisis is the result of hypothyroxinemia. The postoperative crisis manifested by hyperthermia, tachycardia and restlessness associated with anxiety, occurring in spite of postoperative treatment with thyroxin, may be the result of too low a dose of thyroxin or may be a toxic reaction from an overdose of thyroxin. Differentiation between these two types of postoperative thyroid crisis was carried out satisfactorily by comparison of the amount of sugar in the blood before and after thyroidectomy. An increase in content of more than 20 per cent after thyroidectomy indicates a reduced thyroxin level of the plasma. A woman aged 46, whose basal metabolic rate was 72 per cent before thyroidectomy, was given 7 mg. of thyroxin after the operation; she did not have any postoperative reaction. The sugar content was 118 mg. per hundred cubic centimeters on the evening before the operation and 122 on the first postoperative day. A woman aged 33, with diffuse toxic goiter and a basal metabolic rate of 64 per cent, was given 5 mg. of thyroxin postoperatively. A postoperative crisis occurred on the first postoperative day. The temperature and heart action were restored to normal by a supplementary dose of 4 mg. of thyroxin. The third patient, a woman aged 38, with a diffuse toxic goiter and basal metabolic rate of 72 per cent, was given 7 mg. of thyroxin after the operation. The postoperative increase of blood sugar was only 7 per cent, but a postoperative crisis occurred, suggesting that the dose of thyroxin was too high. Treatment with 10 per cent iodine solution was resumed with satisfactory results.

Paris Médical

2:537-548 (Dec. 3) 1949. Partial Index

*Puncture Biopsy of Lung. G. Giraud, P. Cazal and F. Boyer.—p. 537.
Syringe-Transmitted Infection and Its Prophylaxis. J. Boyer.—p. 539.

Needle Biopsy for Lung Lesions.—According to Giraud and co-workers, needle biopsy offers considerable aid in the differential diagnosis of neoplasm, tuberculosis and syphilis of the lung in patients who present a distinctly limited, homogenous dense shadow on roentgenologic examination. Pulmonary abscess, pulmonary cyst or signs of a hemorrhagic syndrome are contraindications to needle biopsy. An intramuscular injection

of 50 mg. of vitamin K should be given twelve hours before the puncture. The needle biopsy should be performed under local anesthesia. The patient is asked to hold his thorax in forced expiration, so that a maximum of air is exhaled and the pulmonary lesion is drawn as near as possible to the costal wall. The trocar then passes through the pleura and the lung into the lesion under fluoroscopic control. Diagnosis of pseudoneoplastic tuberculosis of the right apex in a man aged 54, of cancer of the bronchioles near the hilus at the right apex in a man aged 59, and of pulmonary metastasis of a perirenal sarcoma in a man aged 50, was established by needle biopsy. Mutilating surgical intervention was prevented by the biopsy in the patient with pseudoneoplastic tuberculosis. Needle biopsy was well tolerated. There were no untoward complications.

Prensa Médica Argentina, Buenos Aires

36:1589-1632 (Aug. 19) 1949. Partial Index

*Acute Pulmonary Heart. E. S. Mazzei.—p. 1599.

Acute Cor Pulmonale.—According to Mazzei acute, cor pulmonale is caused by sudden hypertension in the pulmonary circulation, followed by insufficiency of the right heart. It may be caused by pulmonary embolism, rupture of an aortic aneurysm into the pulmonary artery, spontaneous pneumothorax causing acute suffocation and acute diaphragmatic herniation with compression of intrathoracic structures. Pulmonary embolism results from postural phlebothrombosis, in which the blood platelets pass through three progressive stages, agglutination, viscous metamorphosis and intravascular precipitation of fibrin with consequent formation of a thrombus. The deep veins of the calves and of the sole are the usual source of emboli. There is no inflammation of the walls of the veins. The thrombus, made up of platelets, only adheres slightly to the walls of the veins with a viscous hyaline substance and is easily detached. The cardiac complications of embolism are: (1) the so-called massive embolism with sudden death and (2) the acute form causing death or circulatory insufficiency. The clinical symptoms and roentgen signs of acute cor pulmonale permit recognition of the condition. The electrocardiograms in acute cases with shock resemble those of acute coronary insufficiency.

Revista de la Asociación Méd. Argentina, Buenos Aires

63:465-512 (Oct. 15-30) 1949. Partial Index

*Streptomycin in Pediatric Diseases. J. P. Garrahan and J. M. Albores.—p. 468.
Streptomycin in Pulmonary Tuberculosis. R. F. Vaccarezza.—p. 471.

Streptomycin in Diseases of Children.—Garrahan and Albores report gratifying results obtained from administration of streptomycin in 163 infants and children treated the past three years. Streptomycin controls meningitis caused by Hemophilus influenzae and whooping cough in almost all cases. Streptomycin is effective in diarrhea, urinary infection and inflammations of the respiratory passages. It is valuable in tuberculous meningitis, in miliary tuberculosis and in other types of tuberculosis. The improvement in these cases is rapid. Streptomycin does not cure all cases of tuberculosis in infants and children. It is advisable to continue observations on the therapeutic value against tuberculosis, of streptomycin alone or combined with sulfones or with para-aminosalicylic acid.

Scandinavian J. of Clin. & Lab. Investigation, Oslo

1:177-262 (No. 3) 1949. Partial Index

Polarographic Determination of Magnesium in Serum by Aid of 8-Hydroxyquinoline. O. Walaas.—p. 187.
Endogenous "Creatinine" Clearance. E. Biegen, H. N. Haugen and K. Aas.—p. 191.
*Endogenous Formation of Carbon Monoxide in Man Under Normal and Pathologic Conditions. T. Sjöstrand.—p. 201.
Determination of Total Amount of Hemoglobin in Anemia and Polycythemia. T. Sjöstrand.—p. 215.
Enzymatic Method for Determination of Uric Acid by Ultraviolet Spectrophotometry. E. Praetorius.—p. 222.

Endogenous Formation of Carbon Monoxide.—Sjöstrand described a method in 1944 and 1948, which made it possible to determine the carboxyhemoglobin concentration by analyzing the carbon monoxide concentration of the alveolar air. It was assumed that the carbon monoxide detected originated from the atmospheric air, but later it was found that the alveolar carbon monoxide concentration varies considerably in the presence of various pathologic conditions. It was found that carbon monoxide in a concentration of 0.0015 to 0.0030 per cent can be detected in the alveolar air when the subject is inhaling 100 per cent oxygen. Even during the respiration of ordinary air it is possible to show a carbon monoxide concentration of about 0.0003 per cent. Persons who breathe through a carbon monoxide filter for five or six hours show no decrease in the alveolar carbon monoxide concentration. The author also determined the amount of carbon monoxide exhaled during periods of two and a half to three hours in 3 persons and found that it was 0.5, 0.65 and 1 cc. per hour. These observations seem to show that carbon monoxide is constantly being formed in the human body. The alveolar carbon monoxide concentration is fairly similar in different healthy persons, although it shows a certain correlation to body weight during the growing age and to the total hemoglobin in adults. In pathologic conditions the alveolar carbon monoxide concentration may be increased to seven times the normal value. Increases have been discovered in cases of polycythemia, pernicious anemia, aplastic anemia, hemolytic anemias, in connection with blood transfusions, hemolysis after transurethral prostatic resection and venous thrombosis. It appears that this endogenous carbon monoxide formation is associated with the decomposition of blood cells in the organism.

Schweizerische Zeitschrift für Tuberkulose, Basel

6:337-444 (No. 6) 1949. Partial Index

Pathogenesis and Pathologic Anatomy of Tuberculosis in Cattle. W. Frei.—p. 337.
Transmission of Bovine Tuberculosis. P. Kästli.—p. 353.
Results of Typing of Tubercle Bacilli During Period of 1946 to 1949, with Fundamental Remarks on Problem of Typing. A. Grumbach.—p. 364.
*Human Tuberculosis of Bovine Origin. E. Urech.—p. 383.

Human Tuberculosis of Bovine Origin.—According to Urech, the bovine bacillus of tuberculosis enters the human organism through either the mouth or the intestines. Many instances of tuberculosis of cervical lymph nodes are due to Mycobacterium bovis. An abdominal primary complex was demonstrated by Uehlinger on necropsy of 32 per cent of contaminated children. Fifteen of 100 school children with a positive Mantoux reaction, who were examined in a certain region of the Swiss Canton of Vaud, presented a primary complex in the thorax, 6 presented a cervical primary complex and 41 an abdominal primary complex. Results of roentgenologic examination were normal in one third of the instances of primary intestinal adenitis. The type of the bacillus could be determined in only 1 per cent of these lesions. The incidence of primary tuberculosis of bovine origin of the intestines cannot be determined by bacteriologic examination. The intestinal lesions are benign and are limited to mesenteric adenitis. Not a single death occurred among 180 patients with primary mesenteric adenitis, and complications such as erythema nodosum, tuberculous abscess of the right iliac fossa, mild tuberculid and tuberculosis of the knee occurred in only 7 instances. Complete recovery usually takes place, except in children aged less than 3 or 4 years, in whom the disease has a grave and frequently fatal course. Twenty-nine of 114 children who died from tuberculosis in Lund, Sweden, had their initial lesion in the abdomen, and 22 of them were aged less than 3 years. Intestinal infection is characteristic of tuberculosis in infants. Aerogenic infection in man in general is caused by Koch's bacillus. The virulence of the human and of the bovine type of the bacillus of tuberculosis is the same, but it is conditioned by the point of entry, being less severe by the intestinal route. Hedwall reports 94 patients with bovine tuberculosis, 53 of whom presented lung lesions. Unpasteurized milk and other milk products, such as cream, butter and soft cheese, play a part in the transmission of bovine tuberculosis to man, but pasteurizing of milk is to be considered as only a temporary and unsatisfactory solution of the problem. An energic campaign against bovine tuberculosis and against the bacillus-infested milk products is indispensable, because 50 per cent of the cases of tuberculosis in juvenile persons in Switzerland are caused by the bovine Mycobacterium; which is progressively replacing tuberculosis of human origin in children.

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Book Notices

THE REVIEWS HERE PUBLISHED HAVE BEEN PREPARED BY COMPETENT AUTHORITIES AND DO NOT REPRESENT THE OPINIONS OF ANY OFFICIAL BODIES UNLESS SPECIFICALLY STATED.

An Atlas of Amputations. By Donald B. Slocum, M.D., M.S., Orthopaedic Surgeon, Sacred Heart General Hospital, Eugene, Oregon. Cloth. $20. Pp. 562, with 844 illustrations. The C. V. Mosby Company, 3207 Washington Blvd., St. Louis 3, 1949.

As explained by the author, an amputation is more than the mere removal of an extremity, although that is the dictionary definition. Usually, it refers to the removal of a portion of an extremity through the continuity of the bone. If the limb is removed at the site of a joint, the correct term would be "disarticulation." For all practical purposes, however, any surgical removal of any part of an extremity, or of an entire extremity, must be classed as an amputation. This volume is beautifully written and adequately illustrated. Every type of amputation which has been used by surgeons of the present or past generation is described after a discussion of the etiologic factors which may make the amputation necessary and the indications for a particular amputation.

The author was in charge of an amputation center during the war. The influence of the teaching with regard to selection of amputation procedures and technics which were adopted throughout most of the war areas can be noted in every chapter of this book. The book will be of great value when used for problems encountered in combat, after a major catastrophe during peace time or in the practice of any surgeon engaged in civilian practice. The development of technics of chilling or freezing severely crushed or gangrenous extremities makes possible definitive surgery which does not have to be hurried. The majority of the civilian surgeons who have had ample experience with amputation problems will prefer to complete the job at the first operation and should have sufficient judgment to know where to amputate and when to amputate, in order to obtain primary healing. Rarely will it be found necessary to perform open amputations.

Many amputations are described which the author himself does not recommend. This is particularly true of the amputations through the midtarsal areas of the foot. While it may be true that in a complete reference work on amputations all of these should be included and described, more detailed criticism of less desirable operations would enhance the value of the book as a whole. The chapter on prostheses is well written and illustrated. The rehabilitation program, by which the Army and now the Veterans Administration have trained each patient to use with maximum efficiency a particular prosthesis, is presented most effectively and will be of great assistance to all physicians who are interested in helping their patients to obtain the maximum degree of functional recovery.

Nutrition & the Soil: Thoughts on Feeding. By Dr. Lionel James Picton, O.B.E. Introductory Essay on Creative Medicine by Dr. Jonathan Forman, F.A.C.A. Cloth. $4. Pp. 374, with illustrations. Devin-Adair Company, Publishers, 23 & 25 E. 26th St., New York 10, 1949.

The essence of this book is expressed in the subtitle, "Thoughts on Feeding," for the book contains little in the way of facts concerning modern nutrition but much in the way of thoughts and opinions. The author definitely belongs to that vociferous cult that believes better nutrition is a panacea for mankind's ills and that better nutrition can best come from improved soil, with the use of organic fertilizers. Most persons with enough intelligence to read the newspaper are no doubt aware that improved soil means better crop yields, but few realize that there is little evidence to show that better soil improves the nutritive quality of the produce grown in the soil. I do not wish to depreciate the contribution which modern nutrition has made to medicine and public health. Nutrition is probably the single most important environmental factor affecting one's health. However, this book consists of "thoughts" and not facts, and when it comes to the question of soil fertility and the nutritive quality of the foods produced, there simply is no evidence to support any positive effect.

Undersøgelser over Aneurinudskillelsen i Urinen hos raske og syge Børn. By Annie Schondel. [Studies on Thiamine Excretion in Urine in Healthy and Sick Children. With a Summary in English.] Denne afhandling er af det lægevidenskabelige Fakultet ved Kjøbenhavns Universitet antaget til offentlig at forsvares for den medicinske Doktorgrad, 1948. Paper. Pp. 190, with 13 illustrations. Einar Munksgaards Forlag, Nørregade 6, Copenhagen, K, 1948.

This book is Dr. Schondel's doctoral dissertation. It reports the study of the daily urinary thiamine excretion of healthy infants and children given customary hospital or institution diets, compared with the excretion of 20 normal adults and of a large number of children suffering from various diseases. Urinary thiamine excretion was determined also after administration of 1 mg. of thiamine to children under 3 years of age and 2 mg. to older children. For this study twenty-four hour determinations were recorded for several days after the thiamine administration. The thiochrome method of Westenbrink and Goudschmidt was used throughout, and the data were treated statistically. No correlation was observed between thiamine and body weight, sex or season. The data for the normal group are summarized here:

Age (Yr.)	No. of Subjects	No. of Determinations	Urinary Thiamine, Micrograms in 24 Hr. Range	Mean
< 1 *.....	34	103	2 to 94	37
1 to 3.....	15	88	61 to 123	89
3 to 14, Female.....	23	200	74 to 339	213
Male.....	20	...	118 to 318	...
Adults, Female.....	10	53	49 to 286	163
Male.....	10	47	137 to 210	177

* Artificially fed.

The daily intake of thiamine approximated 58 micrograms per hundred calories. After the loading test, infants under 3 months excreted an average of only 6 per cent of the test dose and those 3 to 6 months old 8 to 9 per cent. Children of the age groups from 6 months to 14 years excreted about 15 per cent of the test dose.

The author concludes that, except for young infants, the Danish diet which contains 40 to 78 micrograms of thiamine per hundred calories, is adequate in thiamine content. The thiamine excretion of diabetic children was within the normal range. Hepatitis and celiac disease may lead to hypovitaminosis. The thiamine content of special diets must be watched.

The booklet contains considerable useful detailed information and an excellent bibliography.

Epilepsy and Convulsive Disorders in Children. By Edward M. Bridge, M.D., Research Professor of Pediatrics, School of Medicine, University of Buffalo, Buffalo, N. Y. Cloth. Price, $8.50. Pp. 670, with illustrations. McGraw-Hill Book Company, Inc., 330 W. 42d St., New York 18; Aldwych House, Aldwych, London, W.C.2, 1949.

This is an extensive clinical study and discussion of the etiology, manifestations, diagnosis and treatment of convulsive disorders in children. Its great virtue lies in the fact that the author has stressed the importance of the many factors which bear on this complex problem and on the successful management of the individual case. He has discussed in detail and with admirable conservatism the significance of heredity, of cerebral injury and disease, of personality, of diet and particularly of the attitude of the patient, his family and his associates toward his disease. He has rightly stressed that the mere prescription of one of the anticonvulsant drugs does not constitute satisfactory treatment of these diseases. He has emphasized the importance of a clear understanding of the disease and its problems by the parents and teachers and by the patient so far as is possible. He has discussed in detail the problems of proper regulation of medication and the general activities of the patient and the importance of the child's achieving as normal and active a life as possible, with few deviations from the usual, as they impress on the child that he is different, is an invalid and is inferior to his associates.

The book is much too long, verbose and repetitious. The presentation of the bibliography at the end of the book and at the end of each chapter is a needless waste. There is no purpose served in reproducing figure 4, page 72, again on page 575. It is difficult to understand the author's purpose in discussing the effects of thrombosis of various major cerebral arteries in a

book of this kind. Furthermore, the text on the effects of occlusion of the anterior cerebral artery is incorrect.

Few workers in the field would agree that their experience supported the statement in this series of cases that there was "no evidence of brain injury" in only 30 per cent of children with epilepsy. Many experienced clinicians would disagree that "simple petit mal are usually made worse" by properly given bromides. The statement on page 291 that only potassium bromide need be prescribed is hardly in keeping with the prescription on page 610, which lists both potassium and ammonium salts. Few would agree that children require "proportionately less" phenobarbital than adults. One cannot agree that the "ketogenic diet is a powerful therapeutic weapon for use in epilepsy in children," that the results of its use are "as satisfactory as with the drugs in common use," or that it "deserves a conspicuous place among the measures available for the relief of epilepsy in children." The uncritical brief discussion of the surgical treatment of convulsions arising from localized cerebral lesions is unfortunate, as is the emphasis on the value of the electroencephalogram to the clinician. There are several errors in the outline of a neurologic examination on page 573.

The whole tone of the book, the "pictorial table of contents" at the beginning of each chapter, the dulling repetition, the inaccuracies, the superficial discussions of important problems such as surgical treatment and the extensive charts with 1 +, 2 +, 3 + and 4 + gradings which are presented in the appendix, suggest that it probably has been prepared with parents and social workers as well as physicians in mind. The author has had a wide experience; he has a broad view of his problem, and in his attitude toward the management of these unfortunate patients he has a valuable lesson to teach.

Introduction to Microorganisms. By LaVerne Ruth Thompson, R.N., M.A., M.S., Assistant Professor of Nursing Education, Teachers College, Columbia University, New York. Second edition. Cloth. Price, $4.25. Pp. 454, with 73 illustrations. W. B. Saunders Company, 218 W. Washington Sq., Philadelphia 5; 7 Grape St., Shaftesbury Ave., London, W.C.2, 1949.

Many books have been published as an introduction to microorganisms, and several have emphasized bacteriology and public health. In this book, which was written for the student whose chief interest lies in the field of health and welfare instead of in bacteriology per se, Miss Thompson has achieved her objective. This book is written in simple language, and introductory chapters are so organized that no previous knowledge of the subject is necessary. Then, as new ideas are incorporated and developed, they are placed in the succeeding chapters of the book; thus the student acquires essential terms as the subject progresses.

Each section in the book is concise, easy to read and adequately illustrated. The present edition according to the author has been brought up-to-date by the addition of such topics as infectious hepatitis, epidemic diarrhea, virus pneumonia, BCG vaccine and streptomycin. This book is a valuable aid in an introductory study of micro-organisms, particularly for those who may not be concerned with the detailed study in bacteriology but may be interested mainly in the subject of public health.

Citrus Products: Chemical Composition and Chemical Technology. By J. B. S. Braverman, Director of Research, Central Citrus Products Research Laboratory, Rehovoth, Israel. Cloth. $9. Pp. 424, with 106 illustrations. Interscience Publishers, Inc., 215 4th Ave., New York 3; 2a Southampton Row, London, W.C. 1, 1949.

There have been few books written covering the field of citrus technology, and most of them are now outdated. This book is the only current publication in English concerning this important field. It is based on twenty-five years of experience by the author, who is now Director of Research of the Central Citrus Products Research Laboratory, Rehovoth, Israel.

The introduction to the book provides a short history of the citrus industry and touches briefly on the botany, cultivation and marketing, and diseases of citrus fruits. The main body of the book is divided into two parts: Part I covers the chemical composition, taking up each portion of the fruit separately. Included in this section is a discussion of vitamins, with particular emphasis given to vitamin C. Part II covers the chemical technology of the citrus fruit and its by-products, such as peel oils, canned juices, concentrates, marmalades, citric acid and pectin. An attempt is made to cover operations in this country as well as in Palestine and several other countries.

The author evidently has not had an opportunity to observe American practices recently, and some of the methods and equipment discussed are no longer in use in this country. For instance, nothing is said about the developments in the frozen concentrated juice industry and in juice deoilers.

This book will be found particularly valuable by students and research workers in the field of citrus products. It can be highly recommended to the physician who desires information concerning the technology of citrus products.

Elsevier's Encyclopaedia of Organic Chemistry. Series III: Carbocyclic Condensed Compounds. Edited by E. Josephy and F. Radt. Volume 12 A: Bicyclic Compounds (Except Naphthalene). Volume 12 B (Edited by F. Radt): Naphthalene. A. Compounds Containing One Naphthalene Nucleus. Pages 1-344: Hydrocarbons and Halogen Compounds. Pages 345-1052: Nitrogen Compounds. Cloth. $104; $32; $64; for subscribers to Series III, $91; $28; $56; for subscribers to complete work, $78; $24; $48. Pp. 1242; 344; 345-1052. Elsevier Publishing Company, Inc., 215 Fourth Ave., New York 3; 118 Spuistraat, Amsterdam-C., 1948; 1949.

A general description of the proposed scope and purpose of this encyclopedia appeared in THE JOURNAL (page 1513) Aug. 23, 1947, when volume 14, the first to be published, was reviewed. Volume 13 was reviewed in THE JOURNAL (page 270) Jan. 22, 1949. Those volumes were concerned with tricyclic, tetracyclic and higher cyclic compounds. Volume 12 presents bicyclic substances, which completes the series of carboisocyclic condensed compounds.

The tremendous number of substances considered necessitated a division into volumes A and B. The former includes all bicyclic compounds except those with the naphthalene skeleton, which are contained in 12B. References are included through 1944 although structures of compounds are considered to the time of printing. Volume 12A covers such individual compounds as the thujanes, caranes and carenes, indenes and the D vitamins, azulenes, anthelmintic compounds, fenchenes, camphenes, bornylenes, camphanes and their numerous derivatives. Volume 12B gives extensive data for naphthalene, its halogen and nitrogen derivatives, including tetralin, alkylnaphthalenes, nitronaphthalenes, naphthylamines, and, in turn, their derivatives.

Brief comments are made and many references are quoted concerning physiologic properties and toxicity of many compounds. Because of this feature, these volumes should serve as a preliminary reference for physiologists, pharmacologists and toxicologists interested in the effects of a specific substance.

Studies in Air Hygiene. By R. B. Bourdillon and others. Medical Research Council Special Report Series No. 262. Paper. Price, 7s.6d. Pp. 356, with 104 illustrations. His Majesty's Stationery Office, York House, Kingsway, London, W.C.2, 1948.

The fear that World War II might be associated with great epidemics of influenza and other "air-borne" infections led to the organization in London in 1940 of a team of investigators under the direction of the late Sir Patrick Laidlaw to explore new means of air hygiene. After Laidlaw's death, the direction of the work fell to Dr. C. H. Andrewes and later to Dr. R. B. Bourdillon. Report 262, which the Medical Research Council justifiably calls "a landmark in the study of air hygiene," is a collection of 44 papers by members of the group, plus an appendix dealing with certain technical aspects of the work.

The first 12 papers deal with the problem of air sampling. The ingenious and useful "slit sampler" invented by Dr. Bourdillon provides the background for most of these papers. Theoretical and practical problems presented and solved by the slit sampler are discussed and the various "models" of the sampler described. Though the slit sampler has not been employed in work on air-borne infection in the United States, there is no doubt that it is one of the most important tools so far developed in this field. Its particular merit is that it permits the bacteriologic content of the air to be measured continuously and accurately before, during and after the use of bactericidal agents.

"Air Disinfection by Chemicals" is the title of the second section of the report. Herein are described the experiments carried on in the search for a chemical agent which would fulfil the

rigid requirements for a "perfect" air sterilizing agent. Though the ideal compound has not yet been found, much progress has been made. The British and American workers are in agreement that the action of these chemicals, which are effective against air-borne micro-organisms in concentrations of micrograms or even fractions of micrograms per liter of air, occurs when the chemical in vapor phase condenses on the air-borne particle. Thus, it is incorrect to speak of these chemicals as "aerosols." In the United States, propylene and triethylene glycol have been the subjects of most of the investigations of bactericidal vapors. Bourdillon and his group explored the properties of a long list of compounds, of which lactic acid and alpha-hydroxy-alpha-methyl butyric acid are the most promising. Both appear to be active against air-borne bacteria carried in dry particles, a property not shared by many "air-sterilizing" agents.

Studies with ultraviolet rays attracted some attention. Actually, the limitation placed on its usefulness by the restriction of irradiation to the upper third of a room because of danger to the eyes was well recognized. Other methods of air disinfection studied included the use of heat (especially for the air of laboratories dealing with dangerous pathogens), the passage of air through filters and the use of masks.

Dr. Bourdillon and his group appreciate the great difficulties which lie in the way of determining just how much respiratory infection is strictly air borne. However, they rightly point out that there is much justification for attempting to reduce the load of air-borne micro-organisms by the methods now at our disposal. Though no data concerning the infecting dose of respiratory pathogens for human beings are available, animal experiments have shown that both the severity and mortality of air-borne infections are directly influenced by the dosage of virus or bacteria. They discuss also the argument that reduction of air-borne bacteria is bad because it will ultimately impair human immunity to these pathogens. They do not hold with this argument and point to the perhaps debatable analogy with water hygiene to support their contention. This reviewer is in accord with their general conclusions. Though in the case of such infections as measles and chickenpox, it is advisable for children to develop immunity by having the clinical disease before they are fully grown, there is no evidence that this principle applies to common respiratory pathogens. Furthermore, no means of air disinfection is likely ever to accomplish 100 per cent reduction in the air-borne micro-organisms in all places where human beings meet.

X-Ray Treatment: Its Origin, Birth and Early History. By Emil H. Grubbé, B.S., M.D., F.A.C.P. Cloth. $3. Pp. 153, with 31 illustrations. The Bruce Publishing Company, 2642 University Ave., St. Paul 4; also 1506, Minneapolis, 1949.

This unusual book recounts the history of the application of roentgen rays in medicine. The author was a pioneer in roentgenology and one of the first victims of the rays; he presents evidence that he was probably the first person in whom the ominous dermatitis was discovered, and he believes that his survival after fifty years of the painful and mutilating consequences is to be explained mainly by his patient submission to the inevitable, repeated surgical operations. The pages (81 to 89) in which his convictions on this point are expressed are among the most poignant in medical literature, and they deserve to be read by every student. The author believes that the discovery of this dermatitis in himself led to the idea of a therapeutic use of the rays. There are some sobering lessons in his account of early experiences with the treatment of cancer. The book contains some valuable photographs illustrating the beginnings of roentgenology. There are a few erorrs (e. g., the implied separation of roentgen rays into alpha, beta and gamma rays, page 65) that might confuse a student, but the book is not intended as an introduction of radiology and has been written under extraordinary difficulties. It deserves to be widely read by physicians and laymen also, for too many persons today avail themselves of modern medical technics without appreciating the price that medical investigators have often had to pay for their discoveries.

The 1948 Year Book of Obstetrics and Gynecology. Edited by J. P. Greenhill, B.S., M.D., F.A.C.S., Professor of Gynecology, Cook County Graduate School of Medicine, Chicago. Cloth. Price, $4.50. Pp. 602, with 111 illustrations. Year Book Publishers, Inc., 304 S. Dearborn St., Chicago 4, 1949.

It is difficult to present a new review of an annual book which has now become a standard volume for reference. As all medical readers know, the yearbooks are collections of abstracts arranged by subject matter, and their value in each specialty is determined first by the quality of the original contributions, second by the selection of papers to be abstracted and finally by the comments of the editor. The selection of material in the 1948 volume is adequate for the average clinician; the abstracts are tersely and ably written. It is in editorial comment that Greenhill excels. His really stupendous knowledge of the literature, to which is added a large practical clinical experience begun under the arch-conservative De Lee, fit him perfectly for his duties. His comments are forcefully written, amply documented by references to earlier literature and occasionally illuminated with flashes of humor or sparks of anger. Perhaps the editor's distinctive contribution is the sense of proportion and balance which his remarks provide. They enable even the tyro to assess fairly the work reviewed. They give the workaday book personality—a pleasant personality. All who practice gynecology and obstetrics should have these yearbooks within arm's reach.

Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death. Sixth Revision of the International Lists of Diseases and Causes of Death, Adopted 1948. Volume 1. Bulletin of the World Health Organization, Supplement 1. Paper. Pp. 376. World Health Organization, 350 5th Ave., New York 1; Geneva, Switzerland, 1948.

This volume maintains traditions established by the International List of Causes of Death. It provides a single list applicable to morbidity and mortality statistics. For the first time international agreement is expressed in a uniform method of selecting the principal cause to be tabulated if more than one cause is stated on the death certificate.

The manual establishes international standards for coding diseases and for carrying out large scale statistical studies. It can be used as an instrument for centralizing medical statistical data. It is not intended for use in hospital filing and reference work. The diagnostic breakdown is much less specific than that of a disease nomenclature. The "Standard Nomenclature of Diseases and Operations" is undergoing revision for republication in 1950. The new volume will contain code numbers of the international manual (parenthetically) for cross reference.

Medizinische Klinik: Ein Fortbildungskurs für Ärzte. Von Prof. Dr. Ferdinand Hoff, Chefarzt der medizinischen Klinik der Städtischen Krankenanstalten Aachen. Half-cloth. Price, $9. Pp. 467, with 74 illustrations. Georg Thieme, Diemershaldenstrasse 47, Stuttgart-O; imported by Grune & Stratton, Inc., 381 4th Ave., New York 16, 1948.

This book consists essentially of a presentation of 109 medical case-histories of a most varied and instructive sort, including particularly cases of diseases of the heart, blood-forming organs, blood vessels, kidneys and organs of digestion and internal secretion. Cases are chosen to illustrate both rule and exception in diagnostic problems; they are explained by illuminating commentaries and are made accessible by good indexing. This book abounds in suggestions for the general practitioner and the internist.

Textbook of Medicine. By Various Authors. Edited by Sir John Conybeare, K.B.E., M.C., D.M., Physician to Guy's Hospital, London. Ninth edition. Cloth. Price, $8. Pp. 875, with 29 illustrations. Williams & Wilkins Company, Mt. Royal & Guilford Aves., Baltimore 2, 1949.

This well known textbook has been revised extensively. The book differs somewhat in form from American textbooks in that space has been alloted to both pediatrics and dermatology. It places great emphasis on diagnosis by clinical study, with discussion of laboratory technics limited to a minimum. Contributions by eighteen outstanding British physicians provide an excellent picture of British medical opinion regarding common diseases. In general, the volume appears somewhat less comprehensive than most American textbooks.

Queries and Minor Notes

THE ANSWERS HERE PUBLISHED HAVE BEEN PREPARED BY COMPETENT AUTHORITIES. THEY DO NOT, HOWEVER, REPRESENT THE OPINIONS OF ANY OFFICIAL BODIES UNLESS SPECIFICALLY STATED IN THE REPLY. ANONYMOUS COMMUNICATIONS AND QUERIES ON POSTAL CARDS WILL NOT BE NOTICED. EVERY LETTER MUST CONTAIN THE WRITER'S NAME AND ADDRESS, BUT THESE WILL BE OMITTED ON REQUEST.

DRUG ADDICTION

To the Editor:—Has anyone explained the mechanism of addiction to drugs, alcohol and tobacco? F. A. Bonaventura, M.D., San Diego, Calif.

ANSWER.—Drug addiction is a condition in which a person compulsively abuses a drug to such an extent that the individual or society or both are harmed. This excludes, of course, the use of coffee, tea and tobacco and moderate use of alcohol, since these practices cause little harm and are a normal part of the present cultural pattern. There are usually two reasons why persons begin to use drugs: (1) to enjoy the direct pleasurable effects of the drug or (2) to relieve physical pain or psychic tension. All addicting drugs produce unusual mental reactions and are either depressants or stimulants. Depressant drugs are taken to induce a sense of calm, contentment and ease and to release psychic controls on behavior, permitting regression to more infantile types of behavior. Stimulants are taken to produce more intimate contact with the environment and so heighten the enjoyment of everyday experiences and to induce distortions of sensation. Continued abuse of drugs is always due to serious personality difficulties. Almost any type of psychoneurosis or character disorder (constitutional psychopathic inferiority) may underlie drug addiction. Drugs also may be taken to express hostility and resentment against society or, in the case of drugs which produce physical dependence, certain persons may actually enjoy the sufferings of withdrawal. Continued use of drugs leads to further personality alterations, so that the addict becomes conditioned to the drug as the answer to all his problems.

The psychologic reasons for continuing the use of drugs are reinforced in the case of analgesics and barbiturates by the development of an altered bodily state, which necessitates continued use of the drug to prevent the appearance of the abstinence syndrome. Physical dependence does not develop on the stimulant drugs such as cocaine and amphetamine. These agents are ordinarily abused only periodically, and their continued use produces such unpleasant effects that they cannot be taken continuously unless one of the depressant drugs is used concomitantly. Withdrawal of the analgesic drugs, especially morphine, is followed by signs of autonomic dysfunction such as fever, nausea, vomiting, dilatation of the pupils, gooseflesh, sweating and hyperpnea. Withdrawal of alcohol, barbiturates, paraldehyde and chloral may be followed by convulsions and delirium. The mechanism of dependence on barbiturates and alcohol has been studied insufficiently, and there are at present no hypotheses which adequately account for the symptoms observed.

The mechanism of dependence on the opiates has been extensively investigated. Tatum, Seevers and Collins (*J. Pharm. & Exper. Therap.* **38**:447-475, 1929) postulated that the stimulant actions of morphine persist longer than the depressant actions and that the withdrawal signs represent the stimulant actions unchecked by the depressant actions. Recent experimental work by Wikler does not support this hypothesis. Another hypothesis, which is currently popular, states that certain physiologic responses, or adaptive mechanisms, are developed which counteract some of the actions of morphine. When morphine is withdrawn, these counter responses are still operative and, since no morphine is present to oppose them, signs of abstinence appear. Wikler (*Am. J. Psychiat.* **105**:329-338, 1948) stated that adaptive responses are probably conditioned reflexes.

DIPHENYLHYDANTOIN SODIUM AND EPILEPSY

To the Editor:—(1) What is the best treatment for epilepsy? (2) My patient has been taking diphenylhydantoin (dilantin®) sodium, 4½ grains (300 mg.) per day for the past four years. What is the longest time of treatment with diphenylhydantoin sodium without toxic effects? (3) This patient now has a severe dermatitis; besides reduction of the amount of the drug taken, can anything be done for the dermatitis? M.D., New York.

ANSWER.—(1) The principal anticonvulsants are diphenylhydantoin sodium, mesantoin® (3-methyl-5, 5-ethylphenylhydantoin) and phenobarbital. The drug of choice depends on individual circumstances. (2) Some patients have taken diphenylhydantoin sodium for the eleven years that the drug has been available without experiencing toxic symptoms. (3) The rash that sometimes accompanies the use of the drug is an allergic manifestation and usually appears within the first few weeks of medication. However, its relation to the rash in this instance can be determined by stopping use of the drug. If attacks have been absent for two or three years, the patient may not need medication. If he still requires drug therapy, phenobarbital or mesantoin® can be substituted. The former is less likely to cause a rash.

EXAMINATION FOR ACID PHOSPHATASE ENZYMES

To the Editor:—I performed an autopsy on a 20 month old male infant who had been murdered. Examination of the anus showed bruises and excoriations suggestive of sodomy. Examination of the rectal contents, which consisted purely of mucus, did not reveal spermatozoa. An acid phosphatase test on this material revealed 76 Bodansky units of acid phosphatase activity per hundred cubic centimeters. 1. Is there anything except adult male prostatic secretion which could have caused phosphatase elevation in the rectal mucus of this child? 2. Does bacterial action lead to an elevation of acid phosphatase enzymes? Charles P. Larson, M.D., Tacoma, Wash.

ANSWER.—1. There is acid phosphatase in red blood cells which would be present if the mucus was bloody. Also, there is a large amount of alkaline phosphatase in the gastrointestinal tract mucosa. This might cause a rise in the estimation of acid phosphatase in the same manner that increased alkaline phosphatase in the serum is usually associated with an increased acid phosphatase concentration.

2. Acid phosphatase is known to be produced by diphtheroids (Bray, *J. Path. & Bact.* **56**:497, 1944), Aerobacter aerogenes, Bacillus subtiles, Alkaligenes faecalis, Clostridium acetobutylicum and Saccharomyces cerevisiae (Pett, L. B., and Wynne, A. M.: *Biochem. J.* **32**: 563, 1938).

Rusfeldt gives a complete analysis of this problem (*Acta. path. et microbiol. Scandinav.* supp. 58, 1946, p. 1; *Chem. Abst.* **40**: 6143, 1946). The main points are as follows: Semen contains at least 400 Gutman units (a Gutman unit equals 3 Bodansky units) of acid phosphatase per cubic centimeter. The usual average is 2,600 units and normal range 1,500 to 3,500 units per cubic centimeter. Aspermia is not associated with any reduction of acid phosphatase. Semen is the only body fluid with a high acid phosphatase activity. No other body fluids contain more than 10 Gutman units per cubic centimeter.

In this case, where the concentration of acid phosphatase is 0.76 units (Bodansky) and phosphatase 76 units per hundred cubic centimeters, this concentration of acid phosphatase would probably not indicate the presence of semen in the rectal mucus.

"SULFONAMIDE KIDNEY"

To the Editor:—What is the prognosis in "sulfonamide kidney?" I understand that this condition is considered a lower nephron nephrosis. In a case of sulfathiazole sensitivity manifested by erythema nodosum and erythema multiforme at the site of application of sulfathiazole ointment and complicated with transient vomiting, pedal edema, is the persistence of a slight albuminuria over a period of two weeks enough to warrant the diagnosis of nephrosis? The blood cholesterol level is normal. What is the suggested treatment, and for how long can one expect slight exacerbations of skin lesions to appear spontaneously? The skin lesions have almost disappeared following use of antihistaminic cream and antihistaminic agents administered orally. Petechiae and increased coagulation time have been controlled by injections of crude liver and vitamin K at five day intervals, but the albuminuria persists. M.D., South Carolina.

ANSWER.—The prognosis in "sulfonamide kidney" varies with the condition produced by the drug. In simple obstruction of the collecting tubules by crystals the prognosis is good, especially if the renal pelvic deposits are washed away early. In tubular necrosis or lower nephron nephrosis the prognosis is poor once anuria has developed, but with good management and avoidance of overhydration more patients can be tided over the week or two required for regeneration of tubular epithelium and restoration of excretory function. Once recovery from the acute uremia occurs, permanent residual renal impairment is not observed provided the kidneys were previously normal. When sulfonamide sensitivity leads to the syndrome of necrotizing polyarteritis including the renal vasculature, death is probable during the acute stage. A few patients may survive to have perivascular granulomas develop in the kidneys and other organs, but they will succumb to uremia or other serious complications within a few weeks or months. There is no good evidence for more chronic effects of sulfonamide damage to the kidneys.

A nephrotic syndrome has been associated with certain drugs, such as gold compounds and trimethadione (tridione®), but not with the sulfonamide group. In the case cited the slight albuminuria does not warrant a diagnosis of nephrosis

of the type associated with edema and lipemia or of lower nephron nephrosis. The proteinuria may be insignificant, but the patient's renal function and urinary sediment should be carefully checked for evidence of more serious renal affection. If they are normal no special treatment is indicated for the albuminuria, which should disappear soon (if not present prior to this episode).

The cutaneous lesions usually subside in a short time provided further drug sensitization is carefully prevented and local overtreatment is avoided. Repeated recurrence of skin rash, petechiae and other signs, including fever, should lead to a suspicion of polyarteritis and warrant a skin and muscle biopsy. However, sulfonamide sensitivity alone does not lead to chronic vascular allergy.

PEANUT BUTTER

To the *Editor*:—Is peanut butter a full substitute for regular butter? Is there any health hazard involved in continued use of it? Is there any danger for the teeth through the difficulty in removing parts of the peanut butter from the interdental spaces?

M.D., Massachusetts.

ANSWER.—Butter contains 80 per cent or more fat. It is an excellent source of vitamin A and contains some calcium and phosphorus. Peanut butter, on the other hand, does not contain any vitamin A and only about half as much fat. However, peanut butter also supplies an appreciable amount of protein and carbohydrate. It supplies a large amount of calcium and phosphorus and members of vitamin B complex. The caloric value of peanut butter is approximately 85 per cent that of butter. Peanut butter and butter can supplement each other but cannot replace each other completely. Apparently peanut butter can be used for long periods and is an entirely wholesome food when properly prepared. If tooth surfaces are cleansed by gentle brushing after eating, there should be little, if any, danger to the teeth because of the use of peanut butter.

Comparison of Nutritive Values of Peanut Butter and Butter (100 Gm.)

	Peanut Butter	Butter
Protein	38.1 Gm.	0.6 Gm.
Fat	47.8 Gm.	81.0 Gm.
Carbohydrate	21.0 Gm.	0.4 Gm.
Calories	629	732
Calcium	74 mg.	16 mg.
Phosphorus	393 mg.	16 mg.
Iron	1.9 mg.	0.2 mg.
Vitamin A	.....	3,300 I. U.
Thiamine	0.2 mg.	Trace
Riboflavin	0.10 mg.	0.01 mg.
Nicotinic acid	16.2 mg.	0.10 mg.
Vitamin D	.....	35 I. U.

Taken from "Food Values of Portions Commonly Used," by Berves and Church.

ORGASM WITHOUT DISCHARGE

To the *Editor*:—A man aged 38 has diabetes mellitus and takes about 30 units of insulin daily. In February 1940 he complained of weakness and inability to have an orgasm. At that time therapeutic multivitamins were prescribed and he has improved, but even though he has an orgasm he never has any discharge. What is the cause? The patient does not work hard and has intercourse only about twice weekly.

A. G. Zelo, M.D., Scranton, Pa.

ANSWER.—The patient should be thoroughly studied to see whether or not he has hypogonadism. If hypogonadism is present, it may be the result of some disorder in the testes themselves, or it may be the result of lack of adequate stimulation of the testes of the anterior lobe of the pituitary. The patient should have a roentgenogram of the sella turcica, a test to determine his basal metabolic rate and, if possible, a determination of the 17-ketosteroids in the urine. Low basal metabolism and diminished secretion of 17-ketosteroids in the urine would suggest hypothyroidism and hypogonadism secondary to hypopituitarism. Adrenal deficiency may also play a role in the diminished excretion of 17-ketosteroids. If hypogonadism is present, it should be treated with the administration of chorionic gonadotropin, 500 international units three time weekly by intramuscular injection. Testosterone propionate also could be used, 25 mg. three times a week intramuscularly. Stimulation therapy should be tried first. If hypothyroidism is present, it should be treated by the administration of desiccated thyroid. His diabetes mellitus must be watched carefully during treatment. The administration of desiccated thyroid may increase the insulin requirement.

USE OF MEPERIDINE HYDROCHLORIDE IN ASTHMA

To the *Editor*:—At a recent staff meeting a case of severe bronchial asthma was discussed and the administration of small doses (50 mg.) of meperidine hydrochloride (demerol®) reported as the only medication to give relief. The opinion was voiced that meperidine hydrochloride is free of danger in asthma, if given in small doses. Is this correct?

Gustav Leeuwenstein, M.D., Little Falls, N. Y.

ANSWER.—Meperidine hydrochloride has been employed in the treatment of intractable bronchial asthma in patients who become refractory to epinephrine and aminophylline. It may be prescribed in a dosage of 50 mg. to 75 mg. intramuscularly, at six to eight hour intervals for four or five days. Cumulative bronchial and central nervous system relaxation frequently take place in patients in whom persistent bronchospasm had been present. Respiratory depression does not take place with this dosage, provided excessive amounts of barbiturate drugs are not given simultaneously. Meperidine hydrochloride may in some instances be increased to 100 mg. at eight hour intervals, but nausea and vomiting are then more apt to accur. The duration of treatment is limited to less than a week because the purpose of administration is to give relief from asthma while the usual bronchodilator medication is withdrawn, to restore the usual response to aminophylline, ephedrine or epinephrine; in addition, psychic and, at times, physical addiction to meperidine hydrochloride may take place, unless special care is exercised in its administration.

Meperidine hydrochloride usually is employed by mouth in patients with pulmonary emphysema who have become refractory to epinephrine and aminophylline, since addiction is less apt to occur with oral medication. Meperidine hydrochloride should not be depended on as the only medication to terminate refractoriness to bronchodilator medication but used as part of a regimen including iodides, administration of oxygen, rectal ether, bronchoscopic aspiration and other measures, as indicated by the individual case, designed to initiate a remission of asthma.

RHEUMATOID ARTHRITIS

To the *Editor*:—A white woman, now 45, the mother of four children, about eight years ago had swelling and pain in the right ankle which cleared up in three weeks following the use of large doses of thiamine. Three years later she had a similar episode in the left ankle. About five months ago the again noticed swelling and pain in the left ankle. After several days the outer aspect of the ankle became red and hot. Rest in bed and penicillin were advised. The redness and swelling subsided. In about four weeks the right ankle went through the same course as the left. Since then the ankles are painful and stiff in the morning when she first arises. The swelling subsides during the night. The same is about during the day the more swelling there is. After the penicillin therapy she was given large doses of thiamine without improvement and since then has continuously received sodium salicylate and high doses of vitamin B. Improvement has been negligible. About three weeks ago she began to have some swelling, pain, and stiffness of the right knee. About two months ago there appeared hard nodules apparently in the tendons about the ankle and later there developed opposite in the body of calf muscles, in the muscles on the outer aspect of the thigh and finally in the right external oblique muscle. They are not enlarged lymphatic nodes but are definitely in the muscle. They vary in size from a pea to the end of the thumb. Some of the larger ones become red and looked as though they would break down, the center becoming soft, but they gradually resolved to hard indurated areas and none broke down. They have all been tender to touch. This has been considered a case of rheumatoid arthritis. What is the treatment and prognosis? She is anxious to know whether she will have these nodules everywhere over her body.

J. M. Kershaval, M.D., Long Beach, Miss.

ANSWER.—The clinical picture in this patient is consistent with rheumatoid arthritis, of a type seen not infrequently which involves one or a few of the larger joints at the outset. The nodules are also probably a part of this disease, although they present features which are unlike the usual rheumatoid subcutaneous nodules, for example, the nodules being mainly confined to the lower extremities, their tenderness, and their giving the appearance of breaking down. However, all these observations are occasionally encountered in rheumatoid arthritis.

To make a positive diagnosis, a biopsy specimen of one of the nodules should be secured and examined by a competent pathologist. The microscopic appearance of a rheumatoid nodule is distinctive and usually diagnostic. Roentgenograms of the involved joints should also be helpful in excluding a specific infectious type of arthritis, which should be chiefly considered in differential diagnosis. If the diagnosis of rheumatoid arthritis is established, treatment should consist of conservative measures, including increased rest, a liberal diet, regular dosage of salicylates and physical therapy in the form of heat and active exercises. Joint deformity should be guarded against by the use of removable plaster splints. No certain prognosis can be given at this point. The type of joint involve-

ment may be in the patient's favor, while the early development of nodules is generally regarded as an unfavorable feature. Although more nodules may develop, there is no likelihood, if they are of rheumatoid origin, that they will appear over the entire body.

RECURRENT PYELONEPHRITIS

To the Editor:—A white man 20 years of age has had four episodes of hematuria every four years, during which he has high fever, chills, poor appetite and constant urgency but no straining on urination. The ratio between the dextrose and nitrogen of the urine is from 6:1 to 8:1. He has had scarlet fever, streptococcic infections of the throat and measles, the last at the age of 6 years. Family history does not provide anything of importance. The blood pressure is 120 systolic and 78 diastolic. Neither kidney is palpably enlarged, but the prostate seems to be slightly fibrotic at the base. Both seminal vesicles feel fibrotic. Urine examination reveals 1.015 specific gravity, 3 plus reaction for albumin, many red blood cells and pus cells but no casts. Repeated stained urine smears have not revealed pyogens or acidfast bacilli. Cystoscopic examination showed a slightly hyperemic and enlarged prostate, a bladder normal in appearance, and blood from both ureters. On catheterization pus and blood were obtained from both kidneys. The pyelogram showed good calycinal capping, no evidence of tumor or stones and some laxness to the calyces, which was thought to be due to chronic infection. Prostatic secretion contained many red blood cells but organisms could not be demonstrated on repeated examinations. The blood urea nitrogen level was 27.4 mg. per hundred cubic centimeters. The rate of phenolsulfonphthalein excretion was 40 per cent the first hour and 10 per cent the second. The patient received eight doses of 0.06 Gm. of camphorsirine hydrochloride intravenously. Bleeding ceased after the second injection but the pyuria has been worse. Three urine cultures have been negative for acid-fast bacilli, and one urine culture has been reported to show Aerobacter aerogenes and Salmonella enteritidis. Another showed A. aerogenes and Salmonella paratyphi B. Suggest the cause and treatment of pyuria and hematuria. M.D., Louisiana.

Answer.—The association of hematuria and pyuria with chills, high fever and urinary urgency suggests recurrent acute pyelonephritis. The pyelographic observations, the positive urine cultures and the early renal functional impairment suggest a bilateral, chronic renal infection on which the acute episodes are superimposed. The inflamed, congested pelvic mucosa is probably the source of the bleeding. Unless the hemorrhage is serious or leads to painful or obstructing clots, local treatment by irrigation via ureteral catheters is not indicated. On general principles, the patient's coagulation, bleeding and prothrombin times should be checked, although probably they will be within normal limits. The source of the patient's urinary tract infection was probably hematogenous originally, and no focus may be demonstrable now. However, the nasal sinuses should be investigated and the prostatic secretion cultured.

Aerobacter aerogenes is a difficult organism to overcome, because it may not respond to sulfonamides or streptomycin; but aureomycin and chloramphenicol have been reported to be more effective against certain strains. Each should be tried, empirically, in full dosage and repeated negative urine cultures should be considered the criterion of efficacy. Treatment should be continued for a week or so after the urine remains sterile. The patient should not be allowed to become constipated or exposed to gastrointestinal irritation, since the urinary bacteria may originate in the bowel. His pyelonephritis is likely to continue smoldering for years and gradually lead to serious renal impairment. Prompt treatment of acute recurrences will be an important factor in his prognosis. The diet should be adequate to maintain good nutrition and counteract anemia.

DETERMINATION OF PROTHROMBIN TIME

To the Editor:—Please comment on the determination of prothrombin time in the laboratory of a small hospital. It is my understanding that commercial thromboplastin is now available on the market. At least, one of these has been advertised for some time in *The Journal*. Some workers feel that it would be difficult to use a commercial thromboplastin with the expectation of securing accurate and consistent results. Please discuss this. Thos. C. McVeagh, M.D., South San Francisco, Calif.

Answer.—In the small as well as in the large hospital laboratory, the primary considerations regarding performance of a test for prothrombin time should be accuracy of technic and reproducibility of normal values. A full knowledge of the limitations and implications of the standard tests and their modifications which are currently in use is of great importance in interpretation of results. The tests which have found most favor in clinical laboratories are the "one stage" test of Quick and the "two stage" test of Warner, Brinkhous and Smith, both of which have had numerous modifications.

Although some investigators feel that it is necessary for the clinical laboratory to prepare its own thromboplastin from animal tissues in order to obtain a reagent which is maximally active and stable, it has been reported in the literature and has been found from clinical experience that several of the commercial products are sufficiently stable and pure to give reproducible results in the hands of a competent technologist. A trial should be made of several different commercial thromboplastins, under identical conditions, to determine the one which will give the most consistent results with normal plasmas; these results should be reproducible from one lot of thromboplastin to another. One may best determine the activity of a particular thromboplastin preparation by averaging the results obtained from at least five normal, nonicteric plasmas; this activity should be checked at least weekly and preferably daily. The best preparation is one which will give a prothrombin time with normal plasma under 15 seconds, preferably 11 to 12.5 seconds.

For a discussion of the importance of rigidly standardized technics and reagents and understanding of the statistical significance of variations occurring in the prothrombin time test, one should consult the paper of Aggeler, Howard, Lucia, Clark and Astaff (Standardization of the Quick Prothrombin Test; With Reference to the Statistical Significance of Variations in the Prothrombin Concentration with Use of a Stable Thromboplastin of High Potency, *Blood* 1:220 [May] 1946).

CHOLINE AND METHIONINE IN LIVER DISEASE

To the Editor:—What are the relative merits of choline or methionine in liver disease? M.D., Ohio.

Answer.—Choline is a known lipotropic agent; it functions by entering into the composition of phospholipids, substances which are essential for the normal transport of fat from the liver to fat depots. Methionine is usually regarded as similarly lipotropic in its action. It is a choline precursor, furnishing labile methyl groups for the formation of this substance.

Either choline or methionine may have a protein anabolic effect on patients with chronic disease of the liver, and each is thereby clinically useful, as Kinsell's recent studies show (*Ann. Int. Med.* 29:981 [Nov.] 1948). In acute lesions of the liver, the evidence is much less conclusive. So far as comparative effects are concerned, little is known of their relative merits. Kinsell's data do not show that methionine has any greater effect on the balance of protein than choline. In the many clinical studies reported in the literature, methionine, methionine plus cystine and choline have been used most often concurrently and consecutively without really adequate controls, and, therefore, no conclusions as to their effects are permissible. It is probable, as Beams stated (J. A. M. A. 130:190 [Jan. 26] 1946), that these compounds affect chiefly the predominantly fatty liver and that in the nonfatty liver they have a limited range of usefulness.

EFFECT OF ULTRAVIOLET RAYS ON EYES

To the Editor:—A man received severe eye burns after working under ultraviolet rays for about eight hours without eye protection. He now complains of almost continuous headaches. If these headaches are caused by ultraviolet burns of the eyeball, how long can one expect such headaches to continue and what is the treatment? There is no objective evidence of residual injury to the eyes. J. C. Domitz, M.D., Akron, Ohio.

Answer.—The effect of ultraviolet rays on eyes has been studied extensively by members of the Joint Committee on Industrial Ophthalmology, and there appears to have been no reported incidence of a case of intraocular damage due to ultraviolet rays. Any external damage sustained would be clearly visible as a scar on the surface of the cornea. Headaches would not be related to the clinical picture described. The usual investigation of headache problems on the basis of intracranial pressure, migraine, sensitization or nasal pathology, as well as all other sources of headaches, would need to be investigated.

CYSTOCELE

To the editor:—I have a patient who following a hysterectomy slipped and fell. She fell with her legs spread far apart, and she hit the floor forcefully. After this she noticed frequency of urination. I examined her about five hours later and discovered a cystocele. Is there any relation between the trauma itself and the condition which I found? It seems possible that the hysterectomy might have weakened the pelvic support of the bladder sufficiently to permit such a condition following trauma.

G. M. Peine, M.D., Margaretville, N. Y.

Answer.—A cystocele is believed to result primarily from birth trauma. A cystocele most likely could not have developed within five hours of the injury described. Undoubtedly, the patient's cystocele antedated the trauma.